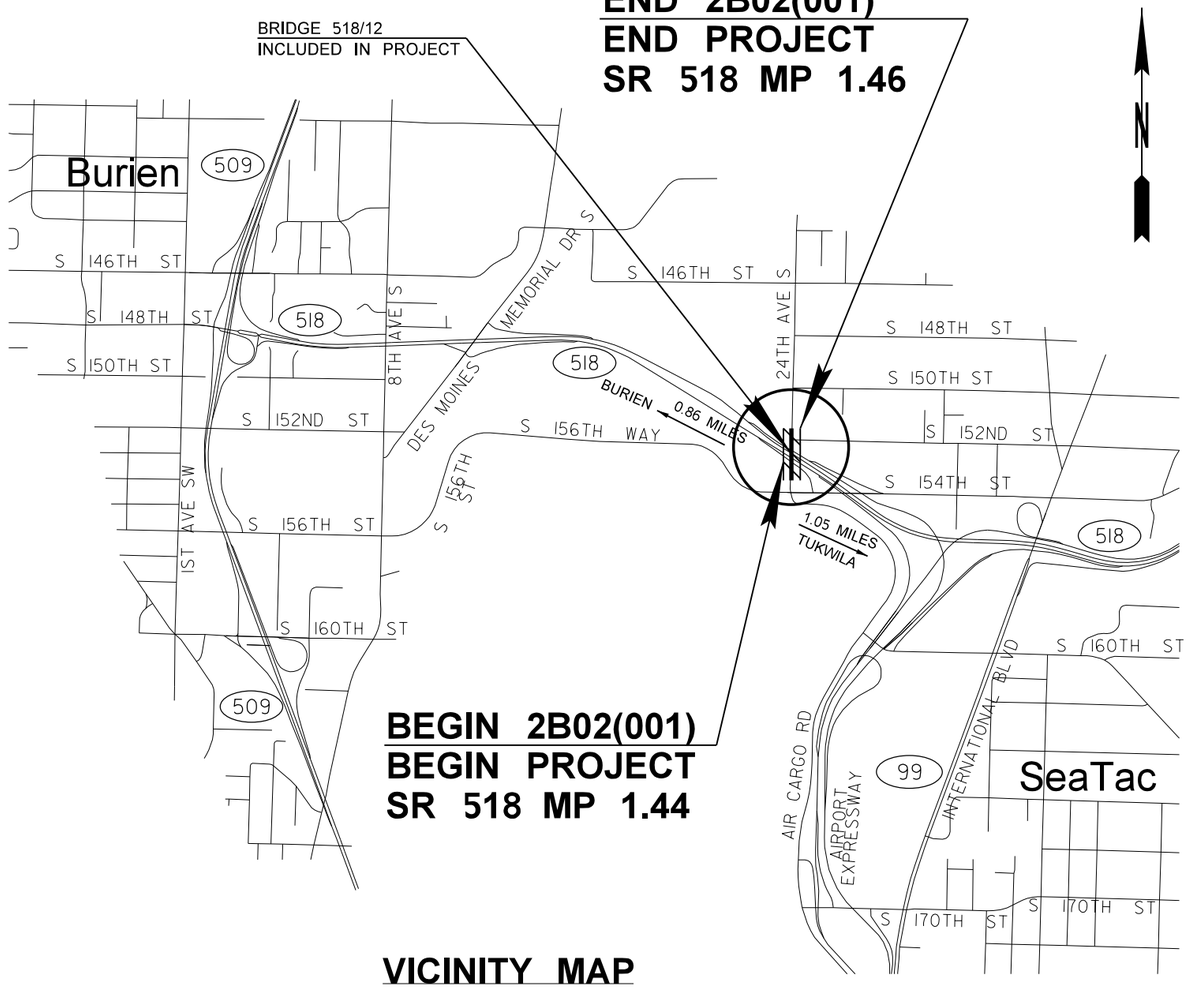
INDEX

S.21, T.23N. R.4E. W.M.

SHEET NO.	PLAN REFERENCE NO.	TITLE
1	VM1	INDEX / VICINITY MAP
2	CT	CERTIFICATION SHEET
3	SQ1	SUMMARY OF QUANTITIES
4	SP1	SITE PREP / TESC PLAN
5 - 6	E1 - E2	ELECTRICAL PLAN
7	B1	LAYOUT
8	B2	GENERAL NOTES
9	B3	DEMOLITION SECTIONS
10	B4	SUGGESTED DEMOLITION SEQUENCE
11	B5	DEMOLITION DETAILS
12	B6	SUGGESTED CONSTRUCTION SEQUENCE
13	B7	FRAMING PLAN & TYPICAL SECTION
14	B8	CONCRETE GIRDER DETAILS 1 OF 3
15	B9	CONCRETE GIRDER DETAILS 2 OF 3
16	B10	CONCRETE GIRDER DETAILS 3 OF 3
17	B11	INTERMEDIATE DIAPHRAGM DETAILS
18	B12	PIER DIAPHRAGM DETAILS
19	B13	DECK AND BARRIER PLANS
20	B14	DECK DETAILS
21	B15	DECK AND DRAINAGE DETAILS
22	B16	BARRIER DETAILS 1 OF 2 REBAR AND RAILING
23	B17	BARRIER DETAILS 2 OF 2 JUNCTION BOX AND JOINTS
24	B18	LIGHT POLE DETAILS
25	B19	BAR LIST
26 - 41	TC1 - TC16	TRAFFIC CONTROL PLAN
42	DU1	DETOUR PLAN
43	DU2	DETOUR PLAN



VICINITY MAP

0 1000 2000
SCALE IN FEET

PLAN REFERENCE NO.
SHEET OF SHEETS

NOTE: ALL SHEET REFERENCES, FIRST NOS. OF STRUCTURE CODE DESIGNATIONS AND MATCH LINE SHEET REFERENCES, ETC., THROUGHOUT THE PLANS, REFER TO THE ENTRY IN THE PLAN REFERENCE NUMBER BOX.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_IN.dgn
TIME	11:22:05 AM
DATE	10/19/2022
PLOTTED BY	WilsonE
DESIGNED BY	M.D. LONG/Y. DAMTE
ENTERED BY	Y. DAMTE
CHECKED BY	T. BERTOLINI
PROJ. ENGR.	A. EMERSON
REGIONAL ADM.	B. NIELSEN

REVISION	DATE	BY

REGION NO. 10 | STATE WASH
JOB NUMBER 22A019
CONTRACT NO.
FED.AID PROJ.NO. 2B02(001)
LOCATION NO.

P.E. STAMP BOX — DATE
P.E. STAMP BOX — DATE

Washington State Department of Transportation

SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT

INDEX / VICINITY MAP

Plot 1
PLAN REF NO VM1
SHEET 1 OF 43 SHEETS

PROJECT LICENSED PROFESSIONAL CERTIFICATES

Adam Emerson Oct 19, 2022 AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	Duke Do Oct 19, 2022 AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	Matthew D. Baughman Oct 19, 2022 AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.
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AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.	AS A LICENSED PROFESSIONAL IN DIRECT RESPONSIBLE CHARGE OF DEVELOPING THIS CONTRACT, I CERTIFY THAT ALL PLANS THAT CONTAIN MY STAMP HAVE BEEN DEVELOPED UNDER MY SUPERVISION.

NOTES:

THIS PLAN SET WAS DEVELOPED ELECTRONICALLY UNDER THE DIRECT SUPERVISION OF THE LICENSED PROFESSIONALS THAT HAVE AFFIXED THEIR SIGNATURE TO THIS PAGE.

THIS SHEET SERVES AS THE CERTIFICATION BY THE ABOVE LICENSED PROFESSIONALS OF ALL SHEETS IN THIS PLAN SET WHERE THEIR STAMPS AND SIGNATURES APPEAR.

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TIME	8:08:57 AM				
DATE	10/12/2022				
PLOTTED BY	WilsonE				
DESIGNED BY	M.D. LONG/Y. DAMTE				
ENTERED BY	Y. DAMTE				
CHECKED BY	T. BERTOLINI				
PROJ. ENGR.	A. EMERSON				
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY	

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER 22A019		
CONTRACT NO.		LOCATION NO.

P.E. STAMP BOX DATE

P.E. STAMP BOX DATE

Washington State Department of Transportation

SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT

CERTIFICATION SHEET

Plot 2

PLAN REF NO CT1

SHEET 2 OF 43 SHEETS

SUMMARY OF QUANTITIES

DOT_RGG900

10/18/2022

ITEM NO	TOTAL QUANTITY	SUB-TOTAL * SECTION I-07.2(1) OF STANDARD SPECS	SUB-TOTAL ** SECTION I-07.2(2) OF STANDARD SPECS	STD. ITEM NO.	UNIT	ITEM	GROUP 1 BRIDGE 518/12	GROUP 2 THIRD PARTY DAMAGES
						PREPARATION		
1	LUMP SUM		LUMP SUM	0001	L.S.	MOBILIZATION	L.S.	
2	LUMP SUM		LUMP SUM	0061	L.S.	REMOVING PORTION OF EXISTING BRIDGE NO. 518/12	L.S.	
						STRUCTURE		
3	111.00		111.00	4269	L.F.	PRESTRESSED CONC. GIRDER - W74G	111.00	
4	-1.00		-1.00	4219	DOL	DEFICIENT STRENGTH CONC. PRICE ADJUSTMENT	-1.00	
5	LUMP SUM		LUMP SUM	4300	L.S.	SUPERSTRUCTURE - BRIDGE NO 518/12 REPAIR	L.S.	
						HOT MIX ASPHALT		
6	160.00		160.00	5711	S.Y.	PLANING BITUMINOUS PAVEMENT	160.00	
7	50.00		50.00	5767	TON	HMA CL. 1/2 IN. PG 58H-22	50.00	
8	300.00		300.00	5830	DOL	JOB MIX COMPLIANCE PRICE ADJUSTMENT	300.00	
9	200.00		200.00	5835	DOL	COMPACTION PRICE ADJUSTMENT	200.00	
10	200.00		200.00	5837	DOL	ASPHALT COST PRICE ADJUSTMENT	200.00	
						EROSION CONTROL AND PLANTING		
11	17.00		17.00	6403	DAY	ESC LEAD	17.00	
12	1.00		1.00	6471	EACH	INLET PROTECTION	1.00	
13	50000.00		50000.00	6490	DOL	EROSION/WATER POLLUTION CONTROL	50,000.00	
						TRAFFIC		
14	615.00		615.00	6781	L.F.	TEMPORARY BARRIER	615.00	
15	1900.00		1900.00	7448	HR	TRANSPORTABLE ATTENUATOR	1,900.00	
16	5000.00		5000.00	7450	DOL	REPAIR TRANSPORTABLE ATTENUATOR	5,000.00	
17	LUMP SUM		LUMP SUM		L.S.	REFERENCE EXISTING PAVEMENT MARKING	L.S.	
18	102.00		102.00	6956	HR	SEQUENTIAL ARROW SIGN	102.00	
19	800.00		800.00	6993	HR	PORTABLE CHANGEABLE MESSAGE SIGN	800.00	
20	LUMP SUM		LUMP SUM	6973	L.S.	OTHER TEMPORARY TRAFFIC CONTROL DEVICES	L.S.	
21	2930.00		2930.00	6992	HR	OTHER TRAFFIC CONTROL LABOR	2,930.00	
22	LUMP SUM		LUMP SUM	6974	L.S.	TRAFFIC CONTROL SUPERVISOR	L.S.	
						OTHER ITEMS		
23	LUMP SUM		LUMP SUM	7037	L.S.	STRUCTURE SURVEYING	L.S.	
24	LUMP SUM		LUMP SUM	7038	L.S.	ROADWAY SURVEYING	L.S.	
25	20000.00		20000.00	7480	DOL	ROADSIDE CLEANUP	20,000.00	
26	5.00		5.00	7725	DOL	REIMBURSEMENT FOR THIRD PARTY DAMAGE		5.00
27	1.00		1.00	7728	DOL	MINOR CHANGE	1.00	
28	LUMP SUM		LUMP SUM	7736	L.S.	SPCC PLAN	L.S.	
29	110.00		110.00		HR	CONTRACTOR PROVIDED UNIFORMED LAW ENFORCEMENT	110.00	

GROUP LEGEND	GROUP NUMBER	SR	CONTROL SECTION	TAX SCHEDULE	FUND PARTICIPANTS
	1	518	174211	**	FEDERAL
	2	518	174211	**	STATE

DATE	REVISION	BY

REGION	STATE	FEDERAL AID PROJECT. NO.
10	WA	

JOB NUMBER 22A019

CONTRACT NO

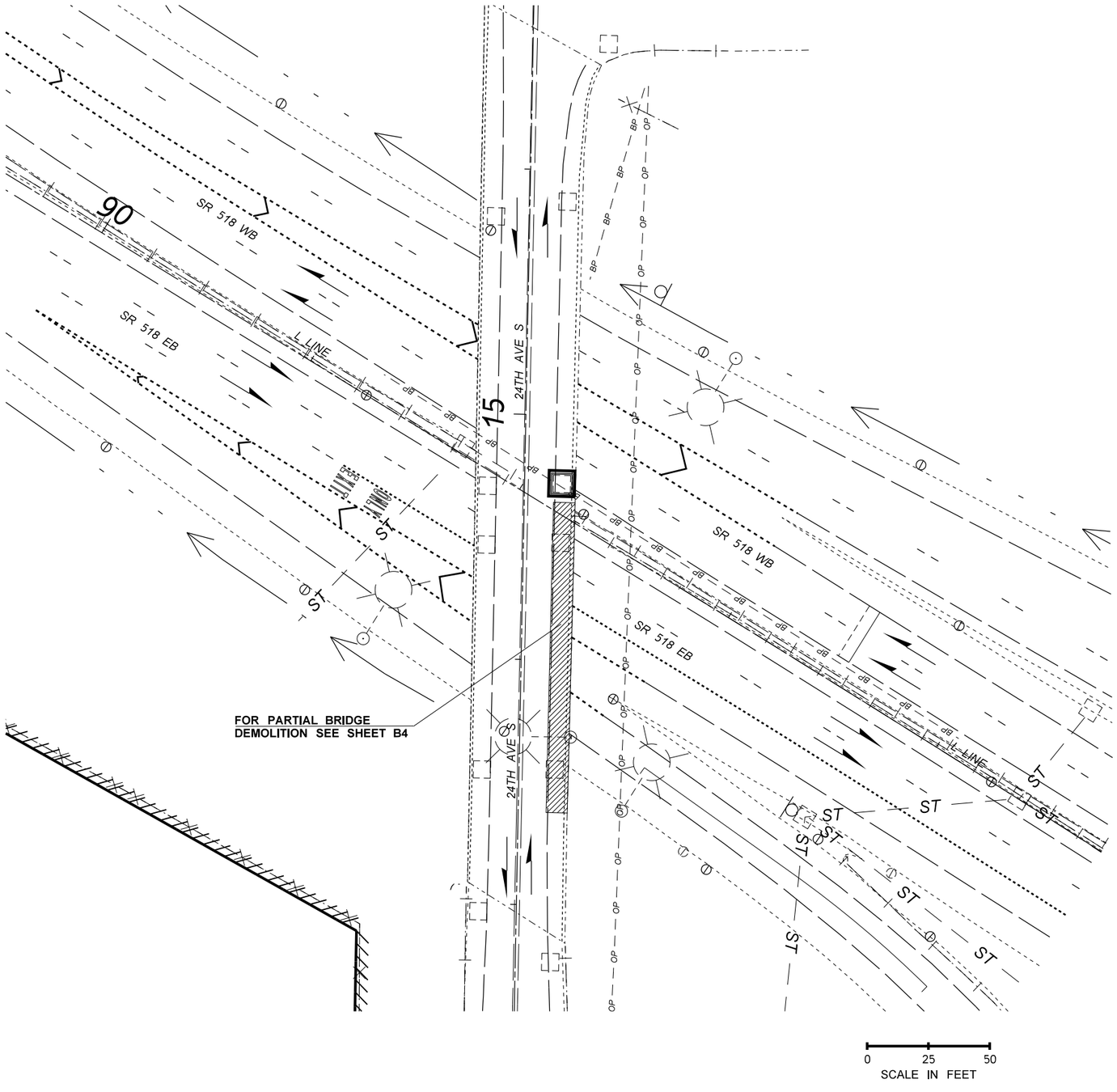
Washington State Department of Transportation

SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT

SUMMARY OF QUANTITIES

SQ1

SHEET 3 OF 43 SHEETS



INLET PROTECTION SCHEDULE	QUANTITY
STA. OFFSET	
24TH AVE S 14+71.88 (15.21 RT)	1

N

NOTE:

1. THE CONTRACTOR SHALL PROTECT IN PLACE, EXERCISE DUE CAUTION TO IDENTIFY AND AVOID OVERHEAD UTILITY POWER LINES.

2. PER STANDARD SPECIFICATION 1-07.23 PUBLIC CONVENIENCE AND SAFETY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFETY FEATURES TO PROTECT THE PUBLIC SUCH AS TEMPORARY CONSTRUCTION FENCING.

3. STREET SWEEPING PAYED UNDER EROSION/WATER POLLUTION CONTROL.

LEGEND

- EXISTING STORM SEWER
- EXISTING DITCH
- EXISTING GUARDRAIL
- EXISTING EDGE OF ROADWAY
- SAW CUT
- EXISTING WIDE LANE LINE
- EXISTING LANE LINE
- EXISTING YELLOW EDGE LINE
- EXISTING WHITE EDGE LINE
- EXISTING DOUBLE CENTERLINE (YELLOW)
- EXISTING FENCE
- EXISTING UNDER GROUND POWER LINE
- RIGHT OF WAY (RW)
- EXISTING OVERHEAD POWER LINE
- EXISTING JUNCTION BOX
- EXISTING LUMINAIRE
- EXISTING CATCH BASIN
- INLET PROTECTION
- PARTIAL BRIDGE DEMOLITION AND GIRDER REPLACEMENT ZONE
- QUANTITY TABULATION NOTE

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TIME	1:33:52 PM
DATE	10/18/2022
PLOTTED BY	Daviesj
DESIGNED BY	M.D. LONG/Y. DAMTE
ENTERED BY	Y. DAMTE
CHECKED BY	T. BERTOLINI
PROJ. ENGR.	A. EMERSON
REGIONAL ADM.	B. NIELSEN

REVISION	DATE	BY

REGION NO.	STATE	FED.AID PROJ.NO.
10	WASH	
JOB NUMBER		
22A019		
CONTRACT NO.	LOCATION NO.	

ADAM A. EMERSON — STATE OF WASHINGTON — 55567 — REGISTERED PROFESSIONAL ENGINEER
See Sheet CT1
DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT

SITE PREP / TESC PLAN

Plot 12

PLAN REF NO
SP1

SHEET 4 OF 43 SHEETS

LEGEND

EXISTING	NEW	
		TYPE 1 JUNCTION BOX
		TYPE 7 JUNCTION BOX
		CONTROLLER CABINET
		ELECTRICAL SERVICE CABINET
		LUMINAIRE
		CONDUIT
	X	CONSTRUCTION NOTE FLAG
	X	WIRING NOTE FLAG

CONSTRUCTION NOTES:

1. COORDINATE WITH CITY OF SEATAC TO DE-ENERGIZE, DISCONNECT AND REMOVE EXISTING LUMINAIRE POLE FOR DURATION OF REPAIR. RE-INSTALL AND RECONNECT EXISTING LUMINAIRE AND ELBOW AFTER REPAIR WORK IS COMPLETE. COORDINATE WITH CITY OF SEATAC ENGINEER TO ENSURE LUMINAIRE IS ENERGIZED AND FUNCTIONING. FOR ELBOW AND ATTACHMENT DETAILS SEE BRIDGE PLANS

2. SPLICE NEW LUMINAIRE POWER CONDUCTOR TO EXISTING.

WIRING SCHEDULE		CITY OF SEATAC SERVICE	
△ NO.	CONDUIT SIZE	POWER #6	COMMENTS
1	2" SCH 80 PVC	1	CONDUIT IN BARRIER SEE BRIDGE SHEETS FOR DETAIL

ABBREVIATIONS:

ADA	AMERICANS WITH DISABILITY ACT	I/S	INTERSECTION	SP	SPARE
AGG	AGGREGATE	ITS	INTELLIGENT TRANSPORTATION SYSTEM	SP	SPAN WIRE
ASPH	ASPHALT	JB	JUNCTION BOX	SR	STATE ROUTE
B	BLACK	MAX	MAXIMUM	ST	STREET
C	COMMON/ CONDUCTORS	MIN	MINIMUM	STD	STANDARD
CAB	CABINET	MNRL	MINERAL	STL	STEEL
COMM	COMMUNICATION	N	NORTH	TB	TERMINAL BLOCK
CONC	CONCRETE	N.T.S	NOT TO SCALE	TEMP	TEMPORARY
C(S)	CONDUCTOR SHIELDED	O	ORANGE	TYP	TYPICAL
DET.	DETECTOR	PDA	POWER DISTRIBUTION ASSEMBLY	V	VOLT
DIA.	DIAMETER	PED	PEDESTRIAN	VDC	VIDEO DETECTION CAMERA
E.V.P	EMERGENCY VEHICLE PREEMPTION	PPB	PEDESTRIAN PUSHBUTTON	VEH	VEHICLE
EX	EXISTING	PR	PAIR	VDZ	VIDEO DETECTION ZONE
G	GREEN	P/V	PEDESTRIAN/ VEHICLE	W	WHITE
GALV	GALVANIZED	R	RED	W/	WITH
ILL	ILLUMINATION	SH	SHIELDED	WB	WHITE/BLACK
		SIG	SIGNAL	Y	YELLOW

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DATE	10/19/2022				JOB NUMBER		
PLOTTED BY	ZacharC				22A019		
DESIGNED BY	C. ZACHARIAS				CONTRACT NO.		LOCATION NO.
ENTERED BY	C. ZACHARIAS						
CHECKED BY	S. DIAZ						
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

DULE HUU DO — STATE OF WASHINGTON — 51740 REGISTERED PROFESSIONAL ENGINEER

SEE SHEET CT1 DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

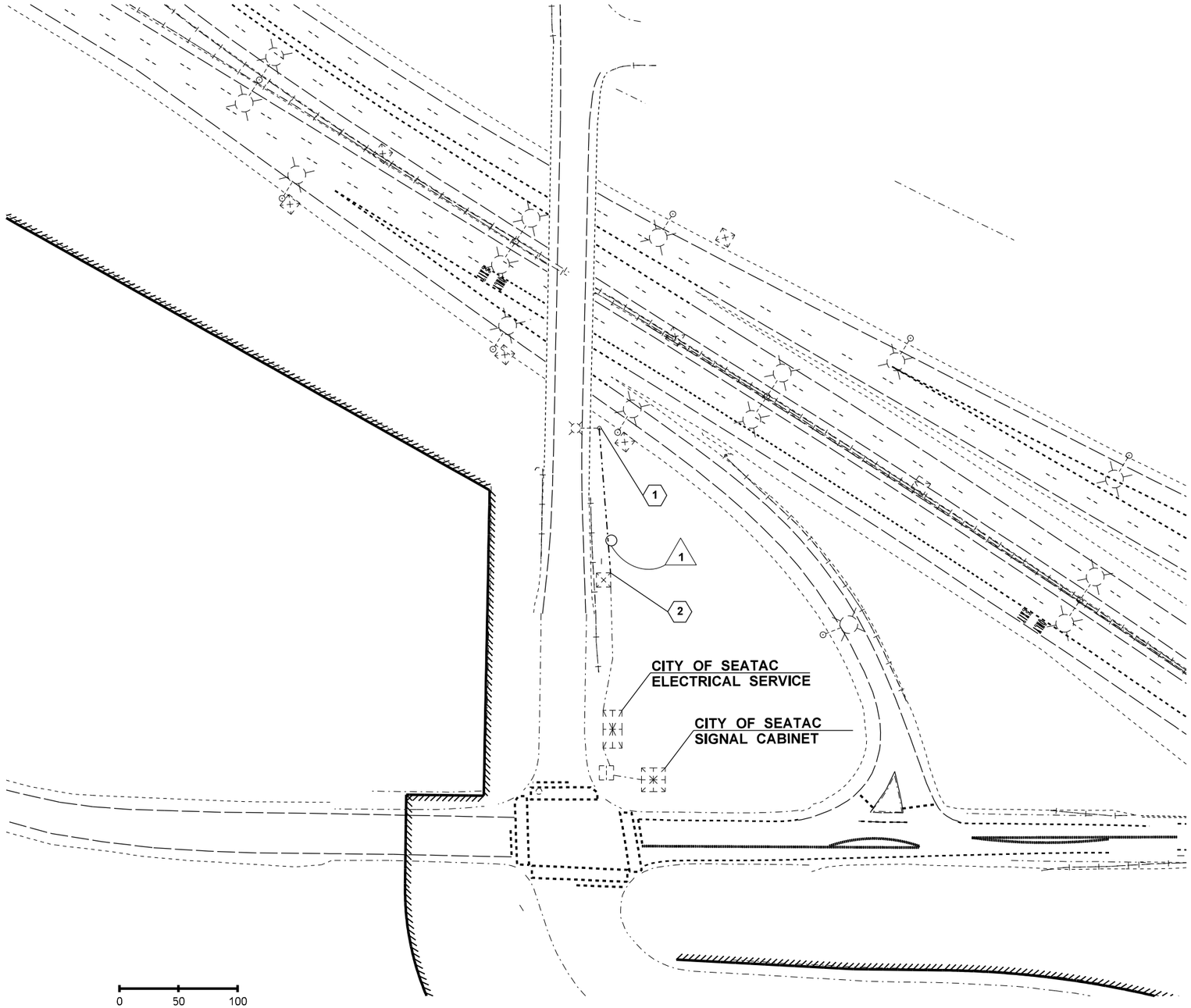
SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT

ELECTRICAL PLAN

Plot 2

PLAN REF NO
EL1

SHEET 5 OF 43 SHEETS



NOTES: FOR LEGEND, ABBREVIATION LIST AND CONSTRUCTION NOTES SEE SHEET EL1.
LOCATIONS ARE APPROXIMATE, COORDINATE ELECTRICAL WORK WITH CITY OF SEATAC ENGINEER.
KAMAL MAHMOUD - 206-973-4742

FILE NAME	T:\414124\ELECTRICAL\Projects\SR518\XL_6403_518_bridge_repair\XL6403_SR518_24th_Ave_S_Girder Replacement_PS_PV_ST.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
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DATE	10/19/2022				JOB NUMBER 22A019		
PLOTTED BY	ZacharC						
DESIGNED BY	C. ZACHARIAS				CONTRACT NO.		LOCATION NO.
ENTERED BY	C. ZACHARIAS						
CHECKED BY	S. DIAZ						
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

DUKE HUU DO — STATE OF WASHINGTON — 31740 — REGISTERED PROFESSIONAL ENGINEER

SEE SHEET CT1 DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

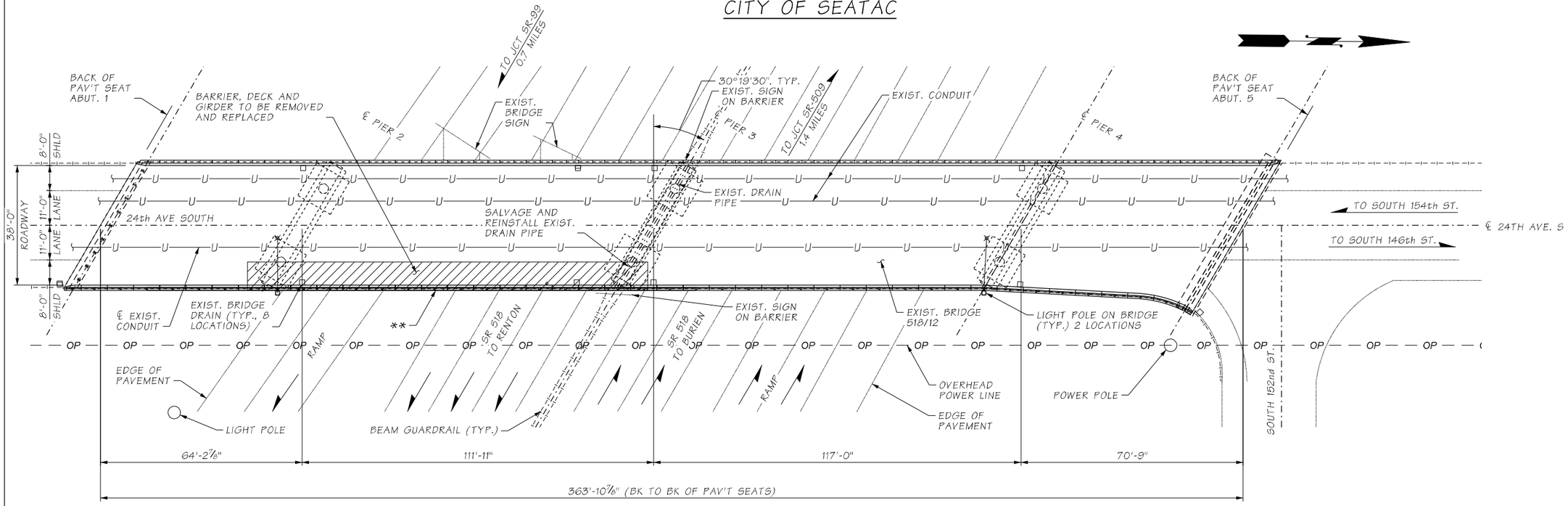
Washington State Department of Transportation

SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT

ELECTRICAL PLAN

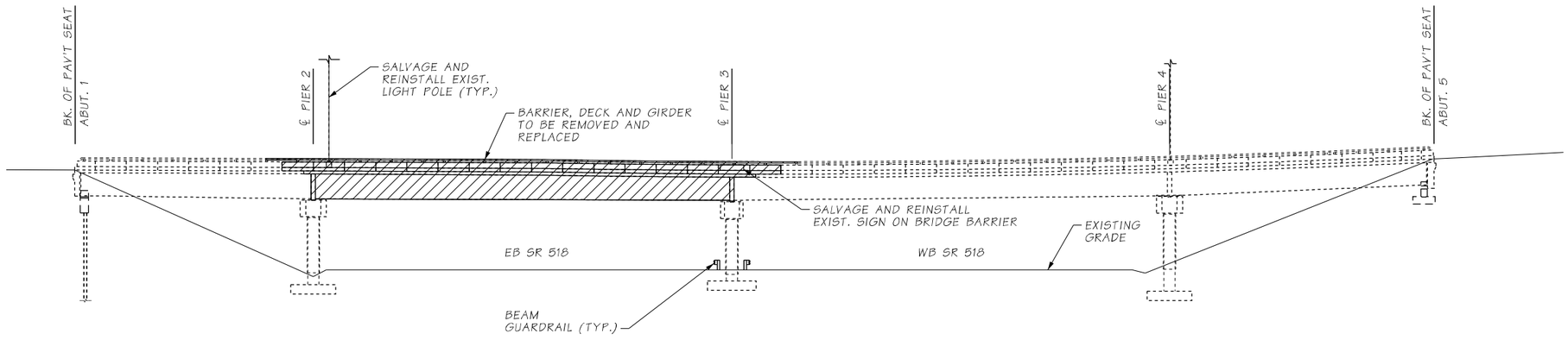
Plot 1
PLAN REF NO **EL2**
SHEET **6** OF **43** SHEETS

SEC. 21, T.23N., R.4E., W.M.
CITY OF SEATAC



** REPLACE 2"ø CONDUIT IN CURB

PLAN



ELEVATION

LEGEND:

- EXISTING LIGHT POLES
- OP — — OP — EXISTING OVERHEAD POWER LINES
- EXISTING GUARDRAIL
- U EXISTING UTILITIES ON BRIDGE
- A / B3 — IDENTIFIES SECTION, VIEW OR DETAIL; TAKEN OR SHOWN ON BRIDGE SHEET B3
- A / - — TAKEN OR SHOWN ON SAME SHEET
- EPOXY COATED BAR
- PJF = PREMOLDED JOINT FILLER
- E.F. / EF = EACH FACE
- N.F. / NF = NEAR FACE
- F.F. / FF = FAR FACE
- U.N.O. / UNO = UNLESS NOTED OTHERWISE

P.C. GIRDERS (WF74G) REPLACEMENT
LOADING: HL-93

W74G P.C. GIRDER
"A" DIMENSIONS = 9" ℄ BRG. PIER 2, 11½" AT ℄ BRG. PIER 3
BRIDGE DECK PROTECTION = TYPE 2
CAST-IN-PLACE CONCRETE STRENGTH = 4000 PSI
SR 518 FILE NO. _____ SHEET _____

C.S. ~ PROJECT NUMBER ~ NORTHWEST REGION ~ SR 518 ~ BRIDGE NO. 518/12 (GIRDER REPLACEMENT)

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkal\d0799822\XL_B01_General Arrangement.dgn							
Supervisor									
Designed By	T. TANG								
Checked By	M. BAUGHMAN								
Detailed By	M. AASAL								
Bridge Projects Engr.	M. ROSA								
Prelim. Plan By									
Architect/Specialist		DATE	REVISION		BY	APP'D			

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 22A019				

BRIDGE AND STRUCTURES OFFICE

MATTHEW D. BAUGHMAN — STATE OF WASHINGTON — 24900 — REGISTERED PROFESSIONAL ENGINEER
SEE SHEET CT1
DATE
P.E. STAMP BOX

Washington State Department of Transportation

COWI

SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

LAYOUT

BRIDGE SHEET NO. B1

SHEET 7 OF 43 SHEETS

GENERAL NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD BRIDGE AND MUNICIPAL CONSTRUCTION, DATED 2023.

2. NEW CONSTRUCTION HAS BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 9TH EDITION - 2020. DEAD LOAD INCLUDES AN ALLOWANCE OF 20 POUNDS PER SQUARE FOOT FOR THE ACP OVERLAY. REINFORCEMENT IN NEW BRIDGE TRAFFIC BARRIERS HAS BEEN DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS FOR TEST LEVEL 4 (TL-4) RAILINGS.

3. THE CONCRETE FOR THE BRIDGE DECK SHALL BE CLASS 4000D. ALL OTHER CAST-IN-PLACE CONCRETE SHALL BE CLASS 4000.

4. REINFORCING BARS SHALL CONFORM TO ASTM A706 GRADE 60 UNLESS OTHERWISE NOTED.

5. UNLESS OTHERWISE SHOWN ON THE PLANS, CONCRETE COVER MEASURED FROM THE FACE OF CONCRETE TO THE FACE OF ANY REINFORCEMENT BAR SHALL BE AS FOLLOWS:
   1½" TOP OF BRIDGE DECK
   1" BOTTOM OF BRIDGE DECK
   2" ALL OTHER LOCATIONS

6. ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED ¾", UNLESS NOTED OTHERWISE.

7. EXISTING FEATURES, DIMENSIONS, AND ELEVATIONS ARE BASED ON AS-BUILT PLANS. THESE DIMENSIONS SHALL BE FIELD MEASURED AND VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING MATERIALS AND FABRICATION.

8. THE LOCATIONS OF ALL EXISTING UTILITIES WITHIN THE VICINITY OF THE STRUCTURE SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.

9. CONTRACTOR SHALL LOCATE EXISTING STEEL REINFORCING USING NONDESTRUCTIVE METHODS TO AVOID DAMAGE DURING DRILLING OPERATIONS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY IF ANY EXISTING REBAR OR ANCHOR BOLTS ARE ENCOUNTERED OR ARE IN CONFLICT WITH THE WORK DETAILS, AND SHALL OBTAIN APPROVAL FROM THE ENGINEER BEFORE CONTINUING WORK.

10. HOLES DRILLED IN EXISTING CONCRETE SHALL BE DRILLED WITH A ROTARY HAMMER. CORE DRILLING IS NOT ALLOWED.

11. EXISTING DRAIN PIPES AND OTHER ITEMS ATTACHED TO THE STRUCTURE SHALL BE CAREFULLY REMOVED AND RE-INSTALLED AFTER THE REPLACEMENT WORK IS COMPLETED. RE-ATTACHMENT DETAILS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL, PRIOR TO RE-INSTALLATION.

12. REPLACEMENT BRIDGE DRAIN PIPE SHALL BE HOT DIPPED GALVANIZED STEEL IN ACCORDANCE WITH SECTION 9-30.1(4).

13. THE EXISTING VERTICAL CLEARANCE SHALL BE MAINTAINED OVER LIVE TRAFFIC. IF NECESSARY, THE CONTRACTOR SHALL INSTALL TEMPORARY BARRIER TO PROTECT FORMWORK/FALSEWORK FROM TRAFFIC, AS APPROVED BY THE ENGINEER.

SR 518 FILE NO. ____ SHEET ____

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dkdypw2\mkall\d0799822\XL_B02_Notes.dgn				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor						10	WASH.			
Designed By	T. TANG									
Checked By	M. BAUGHMAN					JOB NUMBER				
Detailed By	M. AASAL					22A019				
Bridge Projects Engr.	M. ROSA									
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

BRIDGE AND STRUCTURES OFFICE

MATTHEW D. BAUGHMAN — STATE OF WASHINGTON — 24640 — PROFESSIONAL ENGINEER

SEE SHEET CT1

DATE

P.E. STAMP BOX

Washington State Department of Transportation

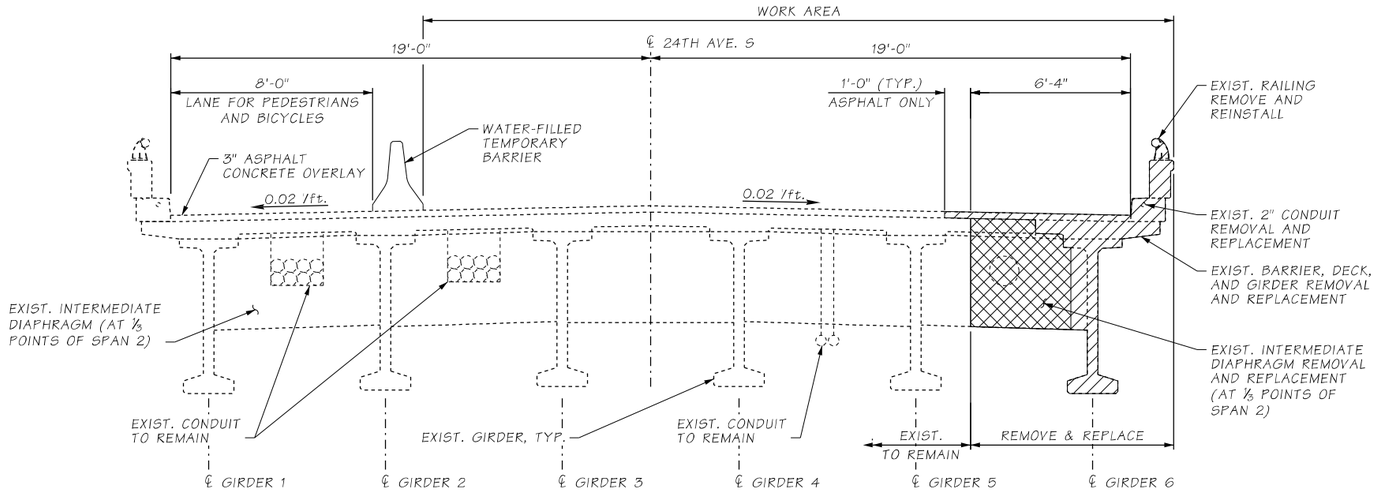
COWI

SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

GENERAL NOTES

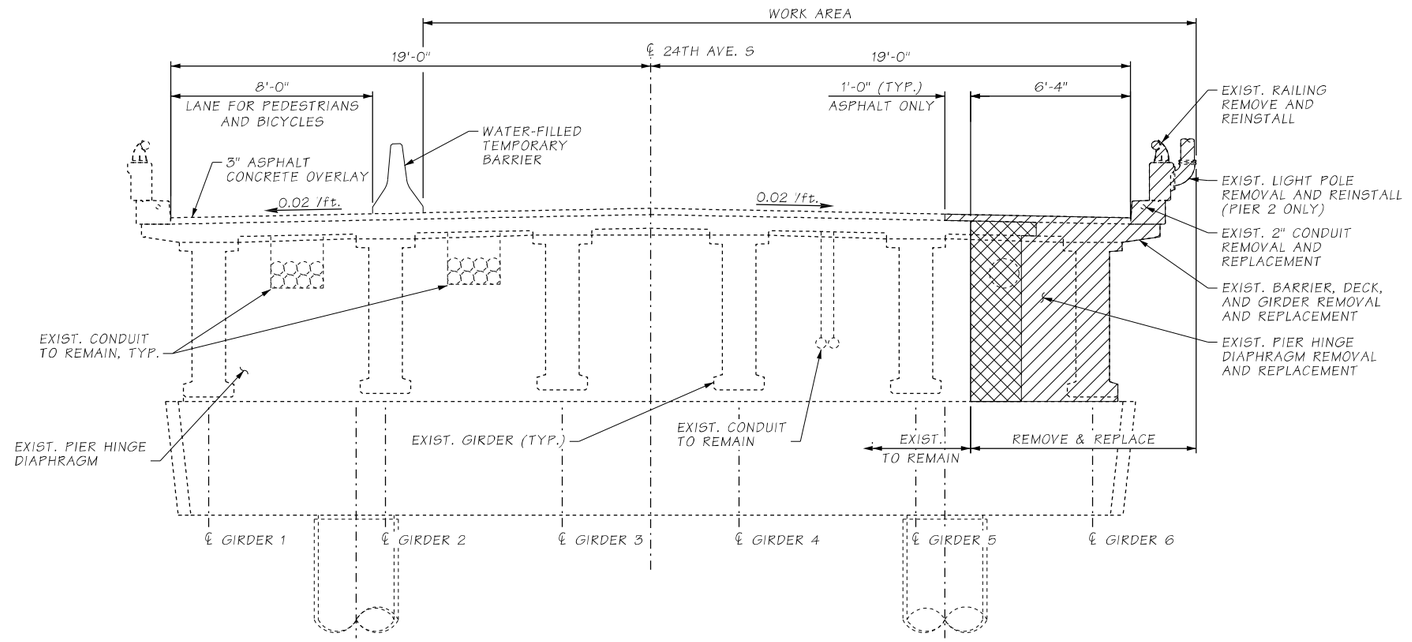
BRIDGE SHEET NO. B2

SHEET 8 OF 43 SHEETS



SECTION IN SPAN 2

(LOOKING NORTH)
(DIMENSIONS SHOWN ARE NORMAL TO ALIGNMENT)



SECTION AT PIERS 2 & 3

(LOOKING NORTH)
(DIMENSIONS SHOWN ARE NORMAL TO ALIGNMENT)

LEGEND

- REMOVAL AND REPLACEMENT
- PARTIAL REMOVAL, SALVAGE EXISTING REINFORCEMENT

SR 518 FILE NO. ____ SHEET ____

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkall\d0799822\XL_B03_StagedConstruction.dgn							
Supervisor									
Designed By	T. TANG								
Checked By	M. BAUGHMAN								
Detailed By	M. AASAL								
Bridge Projects Engr.	M. ROSA								
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 22A019				

BRIDGE AND STRUCTURES OFFICE

MATTHEW D. BAUGHMAN — STATE OF WASHINGTON — PROFESSIONAL ENGINEER
SEE SHEET GT1
DATE
P.E. STAMP BOX

Washington State Department of Transportation

COWI

SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT
BRIDGE NO. 518/12

DEMOLITION SECTIONS

BRIDGE SHEET NO. B3

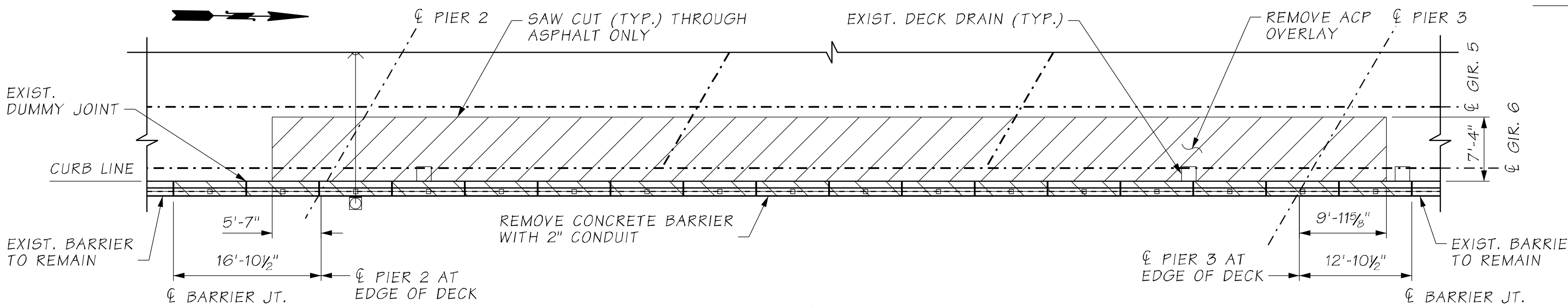
SHEET 9 OF 43 SHEETS

STEP 1

1. REMOVE AND SAVE EXISTING METAL RAIL FOR REATTACHMENT IN CONSTRUCTION SEQUENCE STEP 5.
2. REMOVE AND SAVE EXISTING LIGHT POLE FOR REATTACHMENT IN CONSTRUCTION SEQUENCE STEP 5.
3. REMOVE AND SAVE EXISTING DRAINAGE SYSTEM FOR REATTACHMENT IN CONSTRUCTION SEQUENCE STEP 5.
4. REMOVE EXISTING SIGN ON EAST BARRIER SAVE FOR REATTACHMENT AFTER GIRDER REPLACEMENT.
5. REMOVE ELECTRICAL CONDUCTORS FROM 2" CONDUIT IN BARRIER.

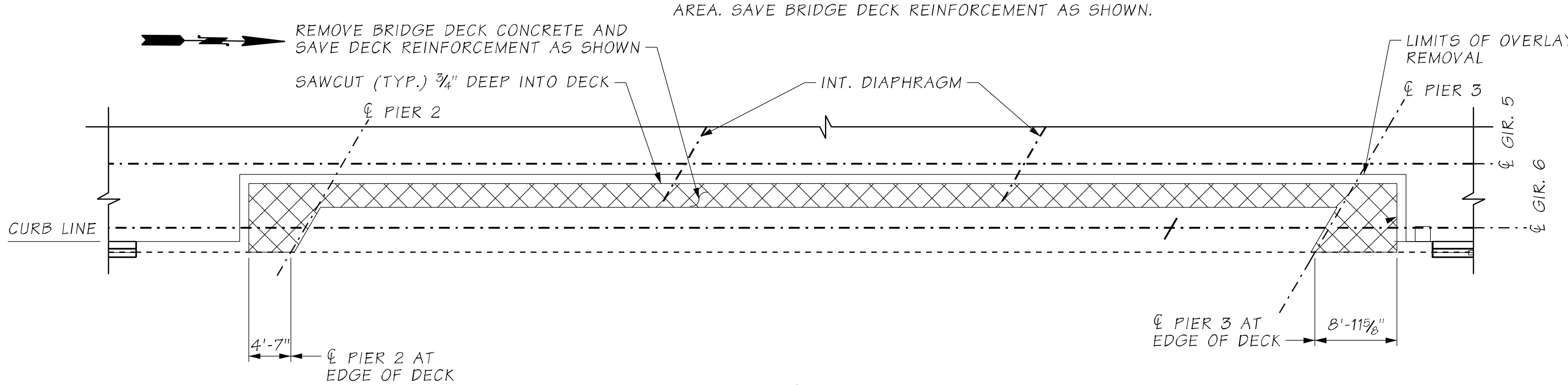
STEP 2

1. REMOVE EXISTING ACP OVERLAY.
2. REMOVE CONCRETE BARRIER WITH 2" CONDUIT.



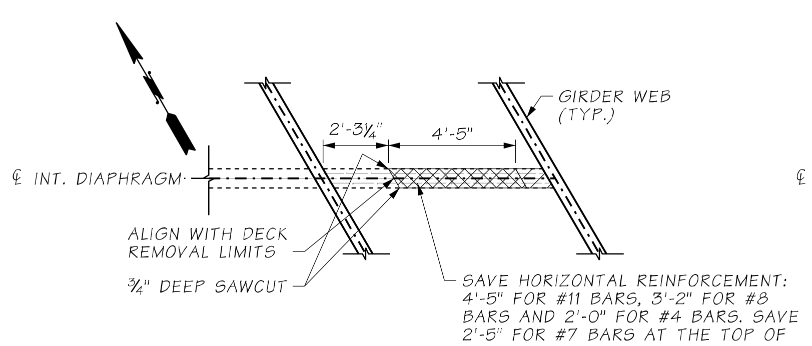
STEP 3

1. REMOVE PORTION OF BRIDGE DECK SHOWN IN HATCHED AREA. SAVE BRIDGE DECK REINFORCEMENT AS SHOWN.

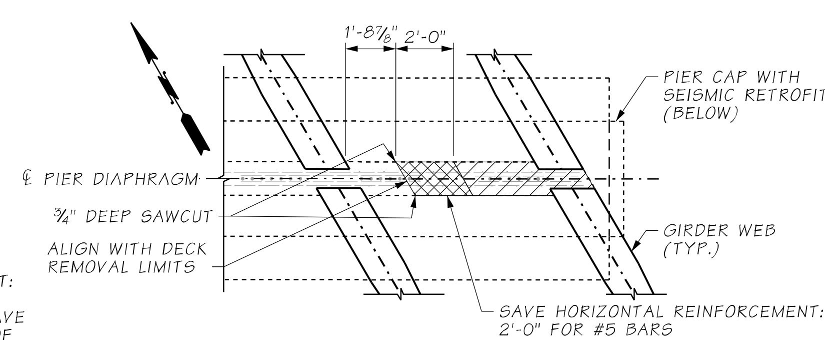


STEP 4

1. PROVIDE TEMPORARY SUPPORT FOR SPAN 1 & 3 GIRDERS AT PIERS 2 & 3. (SEE SECTION B OF DEMOLITION DETAILS BR. SHT. B5).
2. REMOVE DIAPHRAGMS. SEE DIAPHRAGM DETAILS ON BR. SHT. B5.



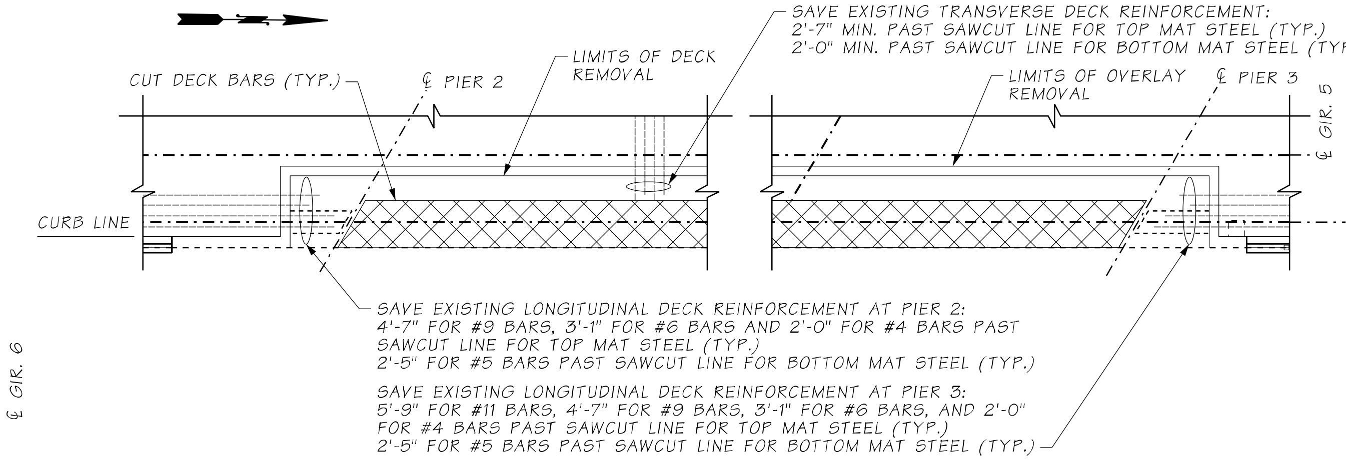
INTERMEDIATE DIAPHRAGMS



PIER DIAPHRAGMS

STEP 5

1. REMOVE REMAINING BRIDGE BARRIER, DECK AND GIRDER. NOT ALL SAVED EXISTING DECK REINFORCEMENT SHOWN FOR CLARITY.



LEGEND

- REMOVAL
- PARTIAL REMOVAL, SALVAGE EXISTING REINFORCEMENT

NOTES:

1. THE CONTRACTOR SHALL BRACE AND SUPPORT THE DAMAGED GIRDER AT ALL TIMES DURING ALL STEPS OF REMOVAL.
2. DEMOLISH EXISTING CONCRETE SHOWN, USING EQUIPMENT PER STANDARD SPECIFICATIONS SECTION 2-02.3(2)A. CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING REINFORCING BARS THAT ARE TO REMAIN.
3. CLEAN EXISTING REINFORCING BARS THAT ARE TO REMAIN.
4. ROUGHEN, CLEAN AND SATURATE THE EXISTING CONCRETE SURFACES BONDING TO FRESH CONCRETE IN ACCORDANCE WITH SECTION 6.02.3(12) OF THE STANDARD SPECIFICATIONS.
5. TEMPORARY SUPPORT SEQUENCE:
   A. PRIOR TO DEMOLITION, BLOCK SNUG TIGHT UNDER SPAN 1 & 3 EXTERIOR GIRDERS AT PIERS 2 & 3.
   B. AFTER COMPLETION OF DEMOLITION, JACK SPAN 1 & 3 EXTERIOR GIRDERS AT PIERS 2 & 3 AS NEEDED TO MAINTAIN EXISTING ELEVATION AND BLOCK WITH OAK BLOCKS. VERIFY THE DIMENSION A AT ℄ BEARINGS (REF. PLAN B09 "GIRDER SCHEDULE"). RELEASE JACKS.
   C. AFTER COMPLETION OF BARRIER REMOVE ALL OAK BLOCKS AT PIERS 2 & 3.

SR 518 FILE NO. ____ SHEET ____

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkal\d0799822\XL_B04_DemolitionDetails1.dgn
Supervisor		
Designed By	T. TANG	
Checked By	M. BAUGHMAN	
Detailed By	M. AASAL	
Bridge Projects Engr.	M. ROSA	
Prelim. Plan By		
Architect/Specialist		DATE / REVISION / BY / APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 22A019

BRIDGE AND STRUCTURES OFFICE

MATTHEW D. BAUGHMAN — STATE OF WASHINGTON — PROFESSIONAL ENGINEER — SEE SHEET CT1 — DATE — P.E. STAMP BOX

Washington State Department of Transportation

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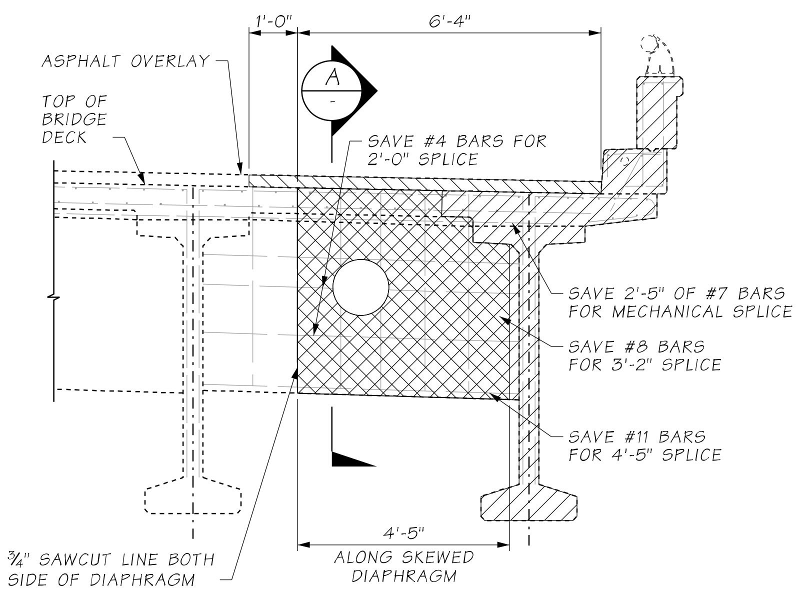
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

SUGGESTED DEMOLITION SEQUENCE

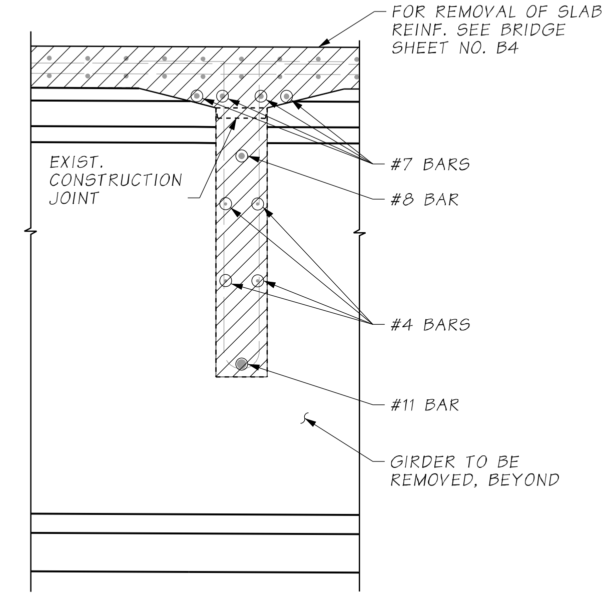
BRIDGE SHEET NO. B4

SHEET 10 OF 43 SHEETS

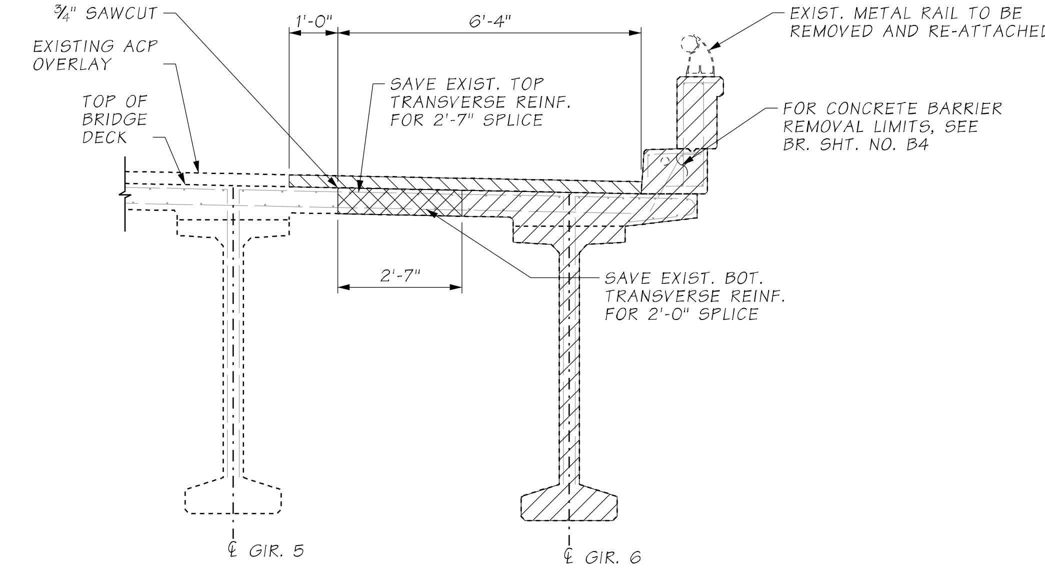


INTERMEDIATE DIAPHRAGM REMOVAL

DIMENSIONS SHOWN ARE NORMAL TO ℄ GIRDERS, U.N.O.

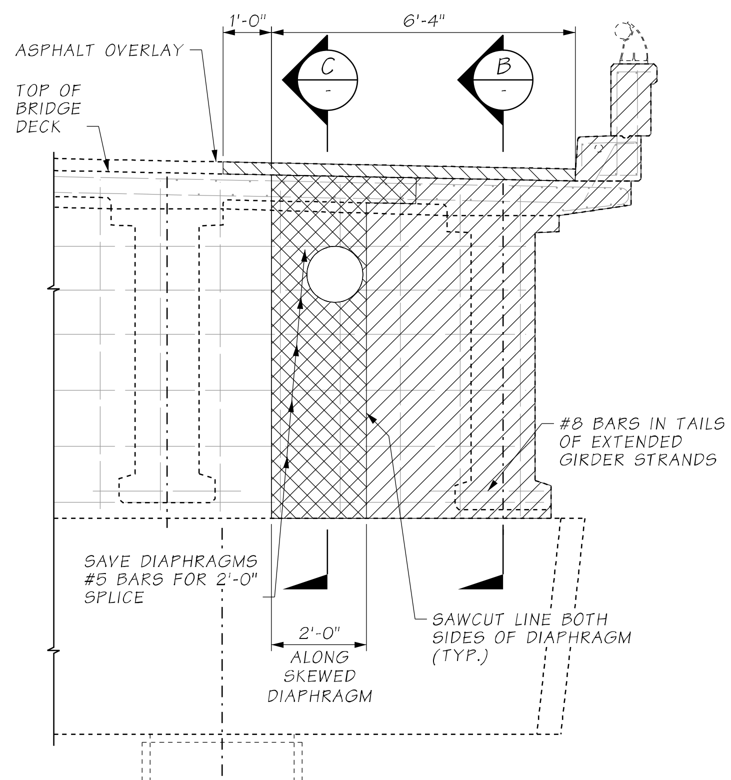


SECTION A



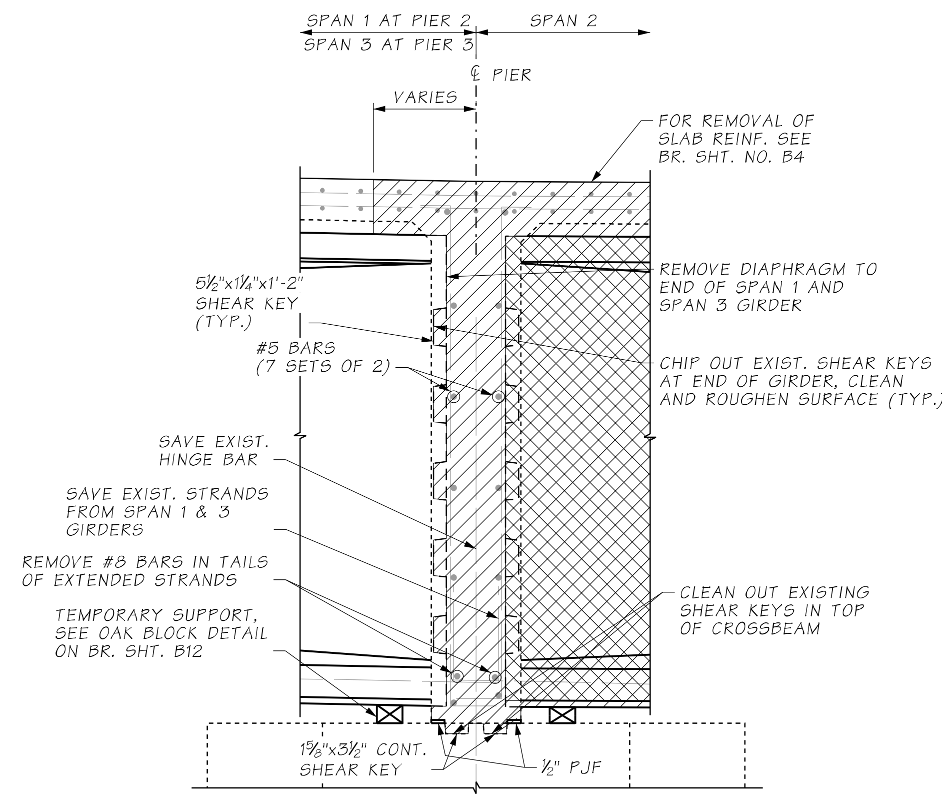
TYPICAL BRIDGE DECK, GIRDER & BARRIER REMOVAL

DIMENSIONS SHOWN ARE NORMAL TO ℄ GIRDERS, U.N.O.



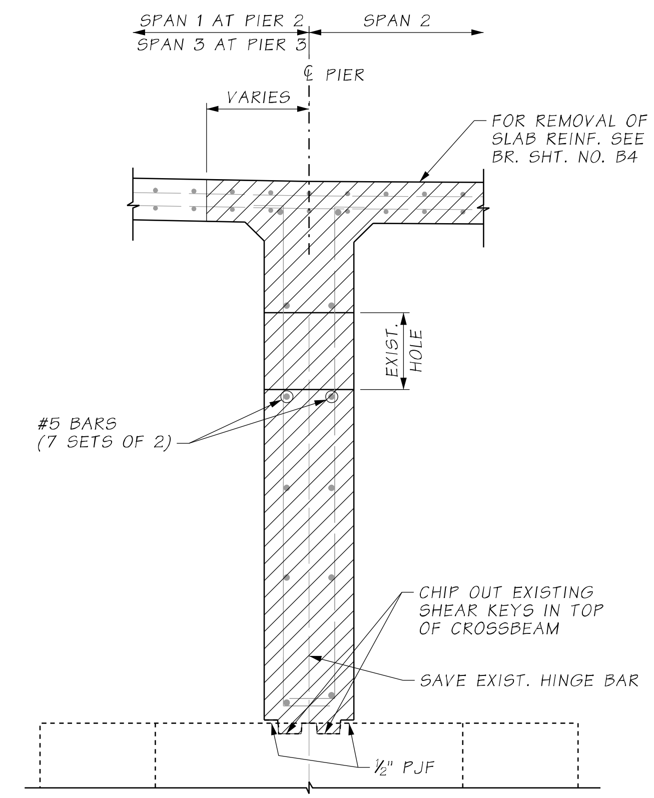
PIER HINGE DIAPHRAGM REMOVAL

DIMENSIONS SHOWN ARE NORMAL TO ℄ GIRDERS, U.N.O.



SECTION B

SECTION THROUGH GIRDER



SECTION C

SECTION BETWEEN GIRDERS

LEGEND

REMOVAL AND REPLACEMENT

PARTIAL REMOVAL, SALVAGE EXISTING REINFORCEMENT

Bridge Design Engr.	B. KHALEGHI
Supervisor	
Designed By	T. TANG
Checked By	M. BAUGHMAN
Detailed By	M. AASAL
Bridge Projects Engr.	M. ROSA
Prelim. Plan By	
Architect/Specialist	

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DATE | REVISION | BY | APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 22A019

BRIDGE AND STRUCTURES OFFICE

SEE SHEET CT1 DATE P.E. STAMP BOX

Washington State Department of Transportation

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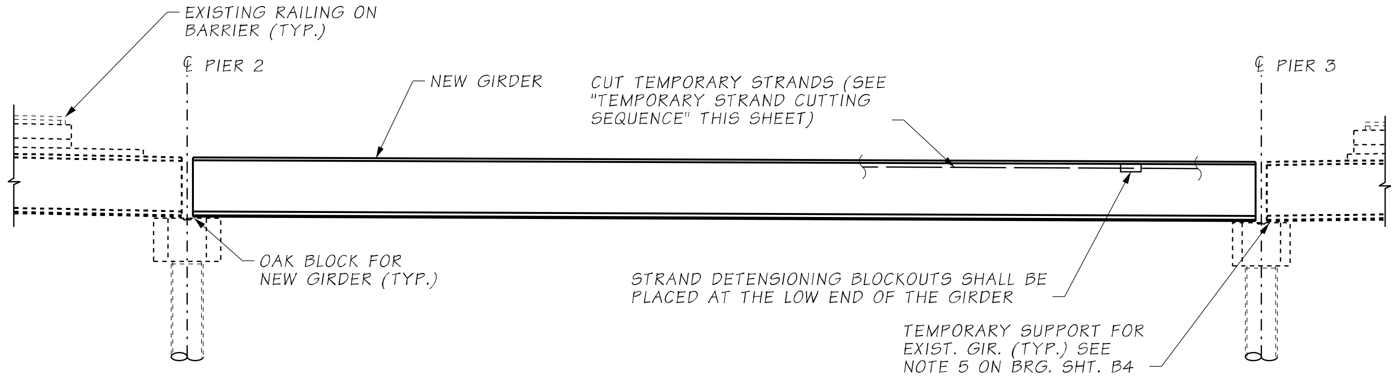
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

DEMOLITION DETAILS

BRIDGE SHEET NO. B5

SHEET 11 OF 43 SHEETS

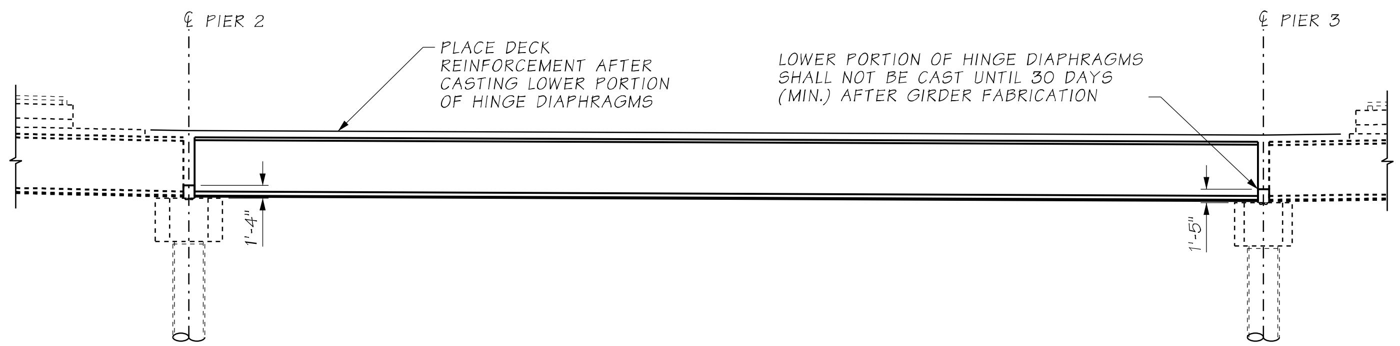
SR 518 FILE NO. ____ SHEET ____



STEP 1

SET GIRDER IN PLACE

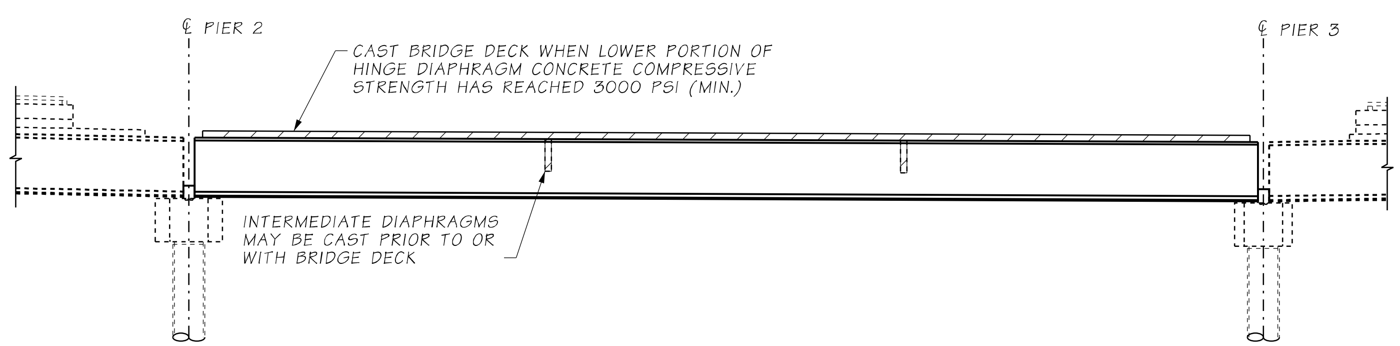
INSTALL TEMPORARY BRACING FOR ERECTION IN ACCORDANCE WITH STD. SPEC. SECTION 6-02.3(17)F4



STEP 2

PLACE HINGE DIAPHRAGMS & PLACE BRIDGE DECK REINF.

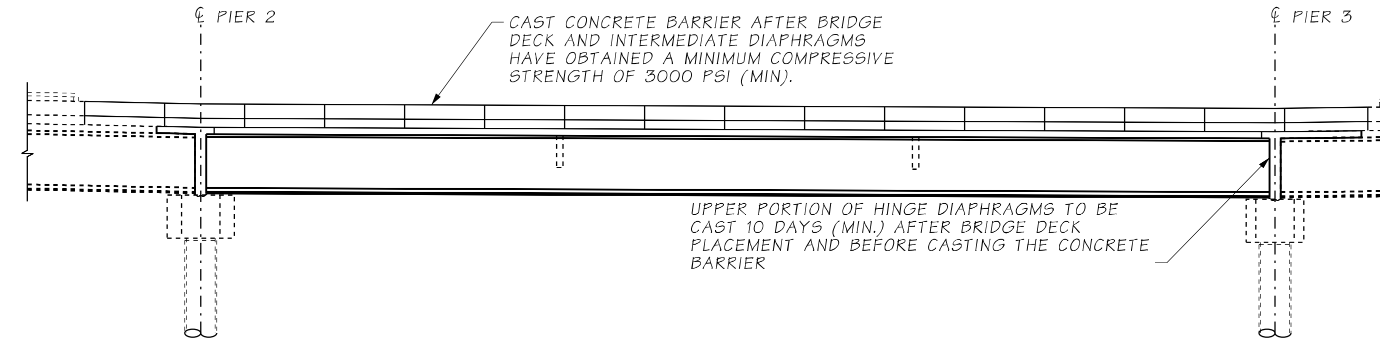
INSTALL TEMPORARY BRACING FOR DIAPHRAGM AND DECK PLACEMENT IN ACCORDANCE WITH STD. SPEC. SECTION 6-02.3(17)F5



STEP 3

CAST BRIDGE DECK AND INTERMEDIATE DIAPHRAGMS

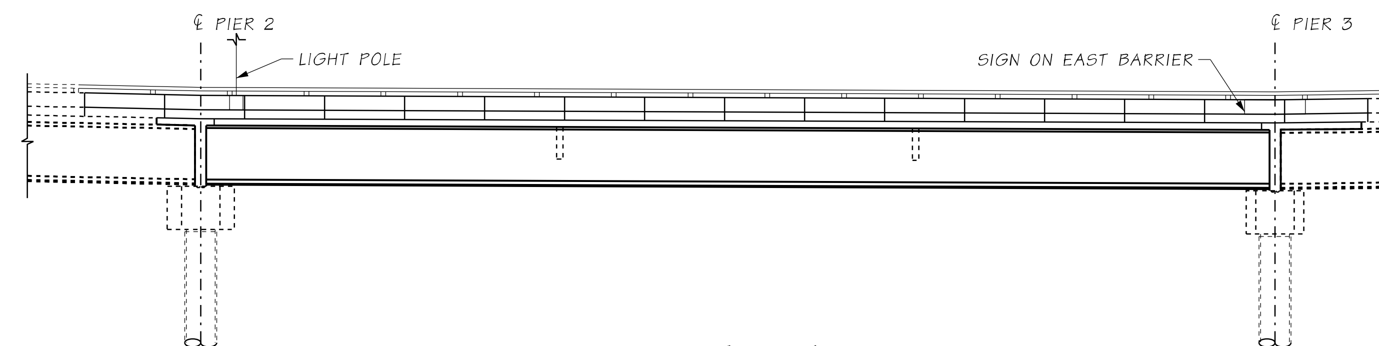
1. CONTRACTOR SHALL MAINTAIN STABILITY OF GIRDERS DURING DIAPHRAGM AND BRIDGE DECK PLACEMENT.
2. THE CONTRACTOR MAY USE HAND-OPERATED MOTORIZED POWER SCREED PER STANDARD SPECIFICATION 6-02.3(10)C.



STEP 4

CAST UPPER PORTION OF HINGE DIAPHRAGMS & CONCRETE BARRIER

1. CAST UPPER PORTION OF HINGE DIAPHRAGMS AND REMAINING BRIDGE DECK ON SPANS 1 AND 3.
2. CAST BARRIER.



STEP 5

1. REMOVE OAK BLOCKS.
2. REATTACH SALVAGED METAL RAIL.
3. PLACE ACP OVERLAY.
4. REINSTALL LIGHT POLE.
5. REINSTALL DRAINAGE SYSTEM.
6. REINSTALL SIGN OF EAST BARRIER.
7. REINSTALL ELECTRICAL CONDUCTORS IN BARRIER CONDUIT.

TEMPORARY STRAND CUTTING SEQUENCE:

1. ERECT AND BRACE GIRDER.
2. JUST PRIOR TO CUTTING THE TEMPORARY STRANDS, REMOVE EXPANDED POLYSTYRENE IN BLOCKOUTS IN TOP FLANGE OF GIRDERS. ONCE THE EXPANDED POLYSTYRENE HAS BEEN REMOVED FROM THE STRAND DETENSIONING BLOCKOUT, PREVENT MOISTURE FROM ENTERING THE BLOCKOUT UNTIL THE TEMPORARY TOP STRAND IS CUT AND THE BLOCKOUT FILLED WITH GROUT.
3. CUT STRANDS IN BLOCKOUTS. STRANDS MAY BE CUT BY USING A CUTTING TORCH AND MOVING THE FLAME BACK AND FORTH OVER THE LENGTH OF EXPOSED STRAND TO LET INDIVIDUAL WIRES BREAK ONE AT A TIME TO LESSEN THE SHOCK TO THE GIRDER. STRANDS SHALL BE RELEASED IN A SYMMETRICAL MANNER ABOUT THE GIRDER CENTERLINE STARTING WITH THOSE FURTHEST FROM THE CENTERLINE AND WORKING INWARDS.
4. WITHIN 24 HOURS OF CUTTING THE TEMPORARY STRANDS, FILL THE BLOCKOUTS WITH A GROUT CONFORMING TO STD. SPEC. 9-20.3(2). REMOVE ALL MOISTURE IN BLOCKOUTS PRIOR TO FILLING THEM WITH GROUT.

SR 518 FILE NO. SHEET

Bridge Design Engr.	B. KHALEGHI
Supervisor	
Designed By	T. TANG
Checked By	M. BAUGHMAN
Detailed By	M. AASAL
Bridge Projects Engr.	M. ROSA
Prelim. Plan By	
Architect/Specialist	

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DATE | REVISION | BY | APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 22A019

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX — SEE SHEET CT1 — DATE

Washington State Department of Transportation

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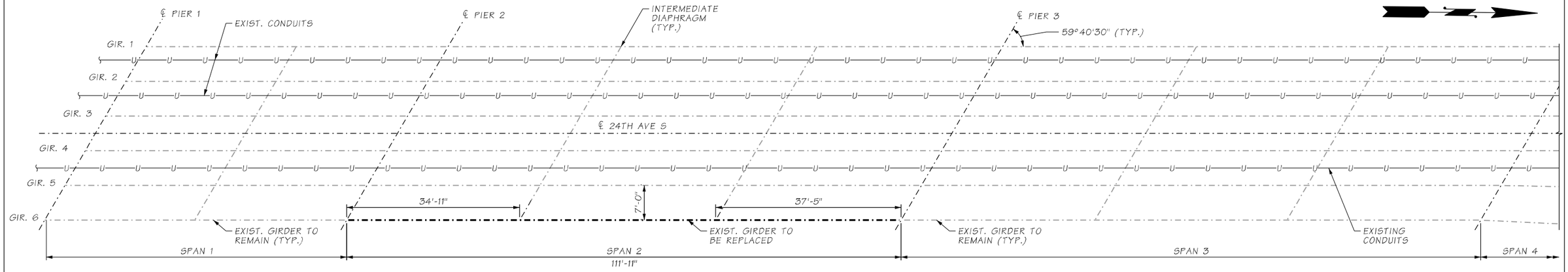
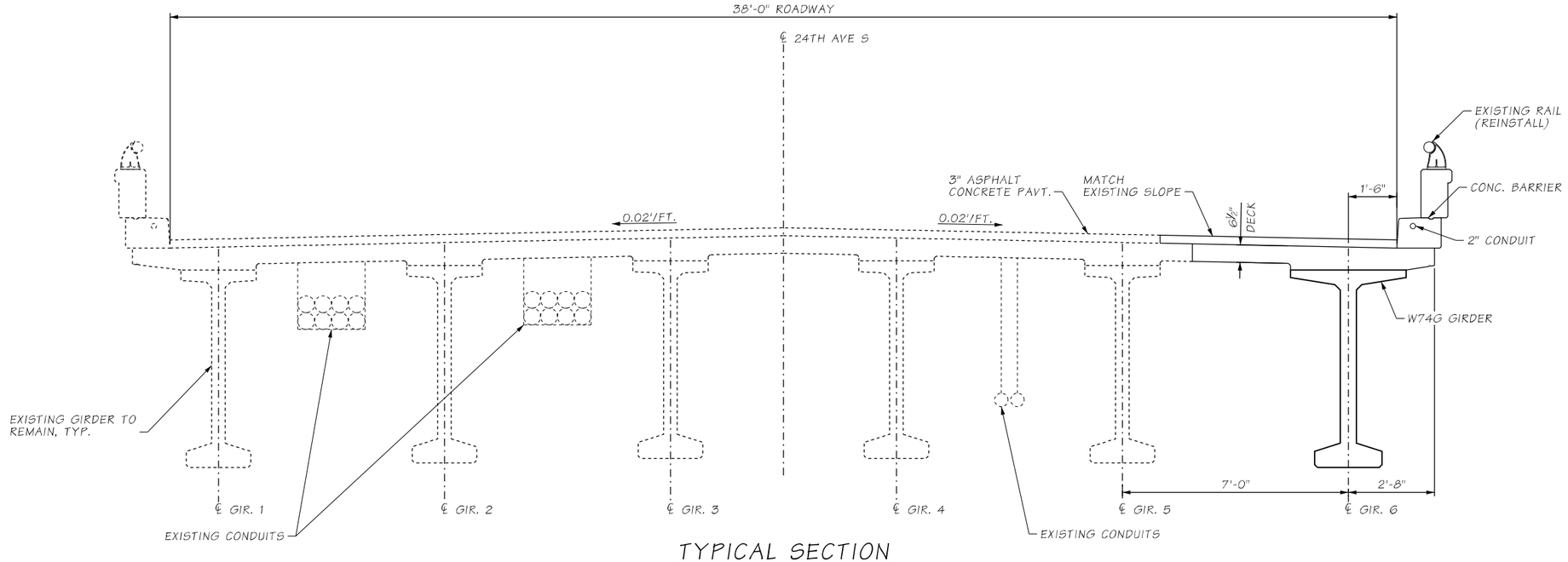
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

SUGGESTED CONSTRUCTION SEQUENCE

BRIDGE SHEET NO. B6



FRAMING PLAN



TYPICAL SECTION

SPAN 2, LOOKING NORTH

SR 518 FILE NO. ____ SHEET

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkal\d0799822\XL_B07_TypicalSection.dgn							
Supervisor									
Designed By	T. TANG								
Checked By	M. BAUGHMAN								
Detailed By	M. AASAL								
Bridge Projects Engr.	M. ROSA								
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 22A019				

BRIDGE AND STRUCTURES OFFICE

MATTHEW D. BAUGHMAN — STATE OF WASHINGTON — PROFESSIONAL ENGINEER

SEE SHEET CTI

DATE

P.E. STAMP BOX

Washington State Department of Transportation

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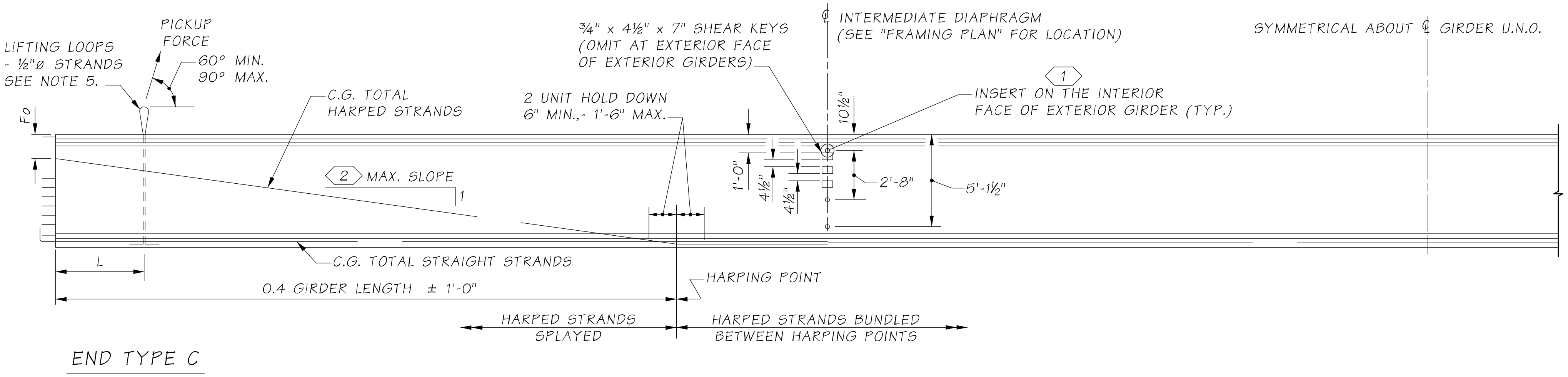
SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT
BRIDGE NO. 518/12

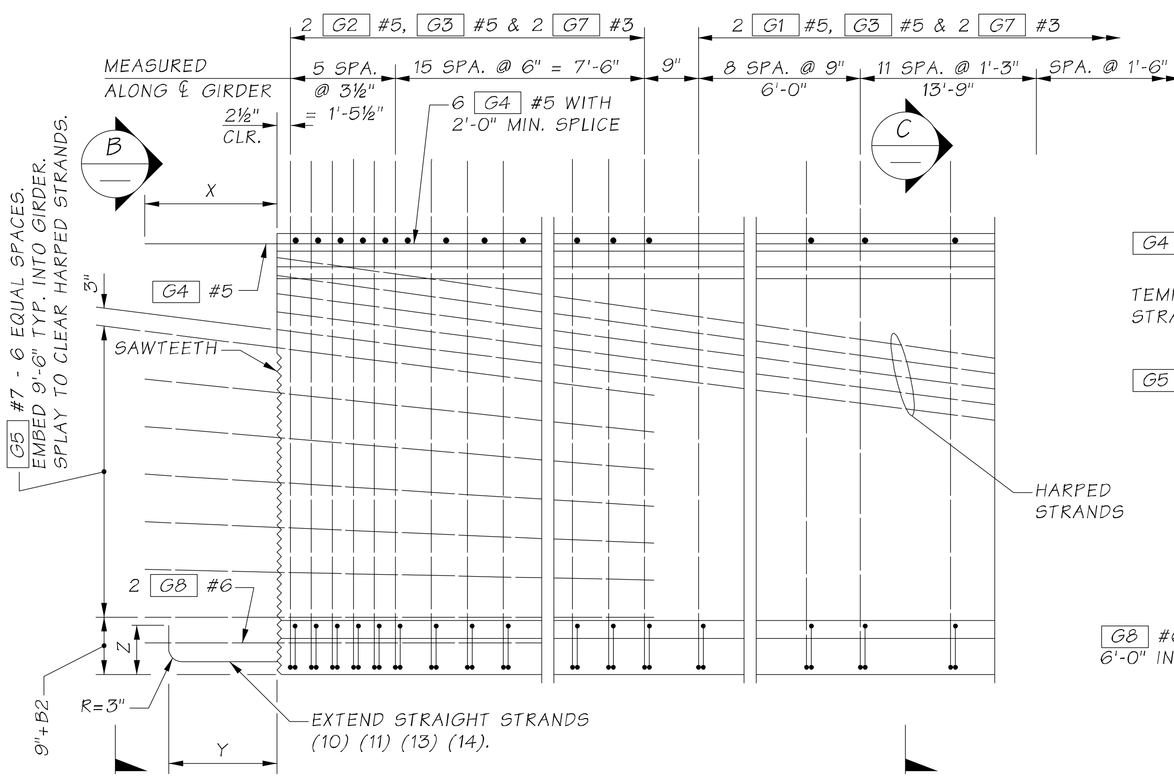
FRAMING PLAN & TYPICAL SECTION

BRIDGE SHEET NO. B7

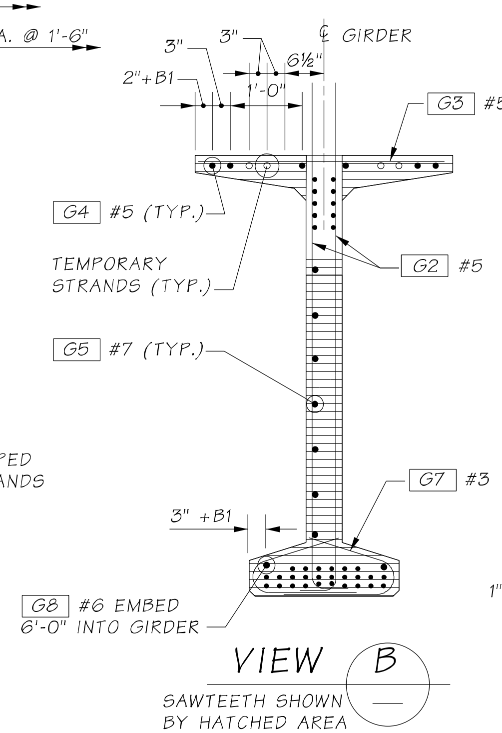
SHEET 13 OF 43 SHEETS



GIRDER ELEVATION

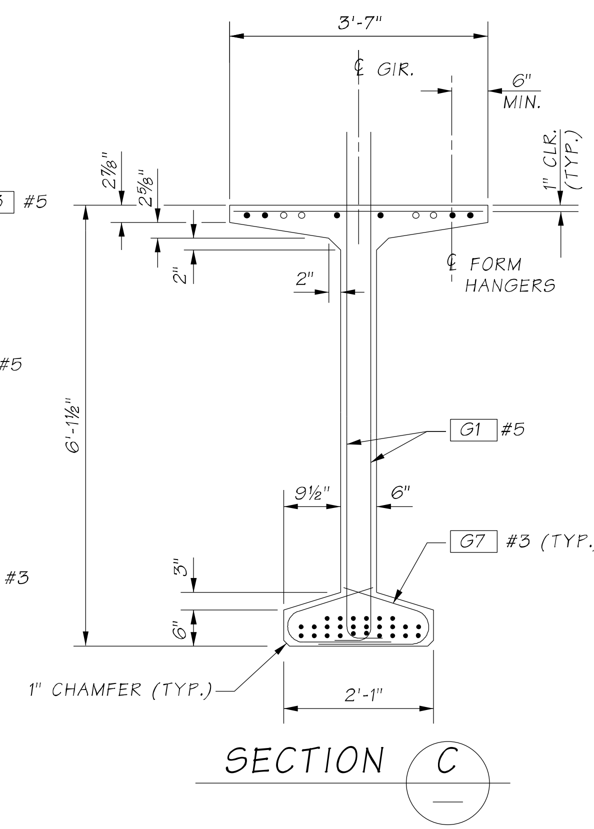


TYPICAL END ELEVATION



VIEW B

SAWTEETH SHOWN BY HATCHED AREA



SECTION C

GIRDER NOTES:

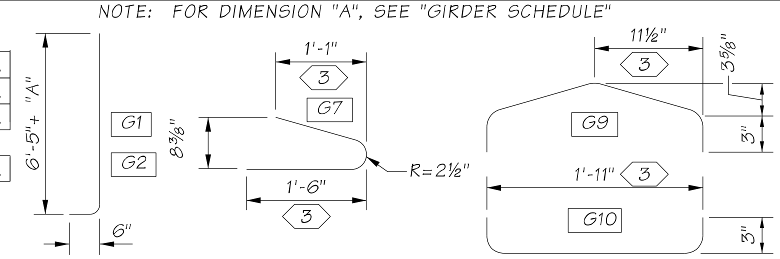
1. PLAN LENGTH SHALL BE INCREASED AS NECESSARY TO COMPENSATE FOR SHORTENING DUE TO PRESTRESS AND SHRINKAGE.
2. ALL PRETENSIONED AND TEMPORARY STRANDS SHALL BE 0.6"ø LOW RELAXATION STRANDS (AASHTO M203 GRADE 270.)
3. CUT ALL STRANDS FLUSH WITH THE GIRDER ENDS AND PAINT WITH AN APPROVED EPOXY RESIN, EXCEPT FOR EXTENDED STRANDS AS SHOWN.
4. THE TOP SURFACE OF THE GIRDER FLANGE SHALL BE ROUGHENED IN ACCORDANCE WITH SECTION 6-02.3(25)H OF THE STANDARD SPECIFICATIONS.
5. LIFTING EMBEDMENTS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 6-02.3(25)L OF THE STANDARD SPECIFICATIONS.
6. CAUTION SHALL BE EXERCISED IN HANDLING AND PLACING GIRDERS. ALL GIRDERS SHALL BE CHECKED BY THE CONTRACTOR TO ENSURE THAT THEY ARE BRACED ADEQUATELY TO PREVENT TIPPING AND TO CONTROL LATERAL BENDING DURING SHIPPING. ONCE ERECTED, ALL GIRDERS SHALL BE BRACED LATERALLY TO PREVENT TIPPING UNTIL THE DIAPHRAGMS ARE CAST AND CURED.
7. TEMPORARY TOP STRANDS SHALL BE EITHER PRETENSIONED OR POST-TENSIONED IN ACCORDANCE WITH SECTION 6-02.3(25)L OF THE STANDARD SPECIFICATIONS AND THE GIRDER DETAILS SHEETS. THE LIFTING LOCATION "L" AND CONCRETE RELEASE STRENGTH "F'CI" SHOWN IN THE GIRDER SCHEDULE ASSUME THAT THE TEMPORARY TOP STRANDS ARE PRETENSIONED. ALTERNATIVELY, POST-TENSIONED TEMPORARY TOP STRANDS MAY BE USED IF THE LIFTING POINTS IN THE GIRDER SCHEDULE ARE MAINTAINED AND THE STRANDS ARE STRESSED PRIOR TO LIFTING THE GIRDER FROM THE FORM.

NOTES:

1. PLACE INSERTS ON THE INTERIOR FACE OF EXTERIOR GIRDERS. PLACE HOLES AND INSERTS PARALLEL TO SKEW. INSERTS SHALL BE 1"ø BURKE HI-TENSILE, LANCASTER MALLEABLE, DAYTON-SUPERIOR F-62 FLARED THIN SLAB (1" x 4⅜") FERRULE OR APPROVED EQUAL. (TYP.)
2. MAXIMUM SLOPE FOR STRANDS: 8 : 1 FOR EACH 0.6"ø STRAND
3. VARIES FOR SKEWED ENDS.
4. PAIRS OF G7 BARS, OR G9 AND G10 BARS, MAY BE USED INTERCHANGEABLY AS BOTTOM FLANGE TIES.

MARK	NOTE	LOCATION	SIZE	
G1		GIRDER STIRRUPS	5	
G2		GIRDER END STIRRUPS	5	
G3		GIRDER TOP FLANGE	5	STR.
G4		GIRDER LONGIT. FULL LENGTH	5	STR.
G5		GIRDER END LONGIT.	7	STR.
G7	4	GIRDER BOT. FLANGE TIES	3	
G8		GIRDER END LONGIT.	6	STR.
G9	4	GIRDER BOT. FLANGE TIES	3	
G10	4	GIRDER BOT. FLANGE TIES	3	

BENDING DIAGRAM (ALL DIMENSIONS ARE OUT TO OUT)
NOTE: FOR DIMENSION "A", SEE "GIRDER SCHEDULE"



FOR END TYPE "C"

SOUTH END
G5 BARS LEFT OF ℄
B1 = 0" (G4 , G8)
B2 = 0" (G5)
NORTH END
G5 BARS RIGHT OF ℄
B1 = 1½"(G4 , G8)
B2 = 3" (G5)

Diaphragm Type	END TYPE	BEARING RECESS	X	Y	Z	SAWTEETH
Hinge Diaph. @ Intermediate Pier	C	NO	7"	9"	1'-5"	YES

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkal\d0799822\XL_B08_GirderDetails1.dgn			
Supervisor					
Designed By	T. TANG				
Checked By	M. BAUGHMAN				
Detailed By	M. AASAL				
Bridge Projects Engr.	M. ROSA				
Prelim. Plan By					
Architect/Specialist		DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
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BRIDGE AND STRUCTURES OFFICE

SEE SHEET CT1
DATE
P.E. STAMP BOX

Washington State Department of Transportation

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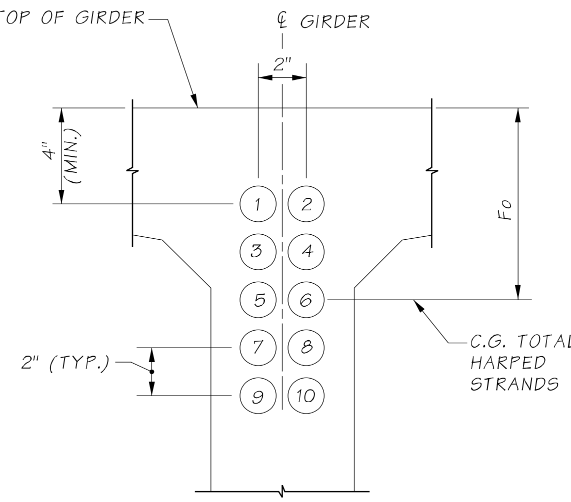
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

CONCRETE GIRDER DETAILS 1 OF 3

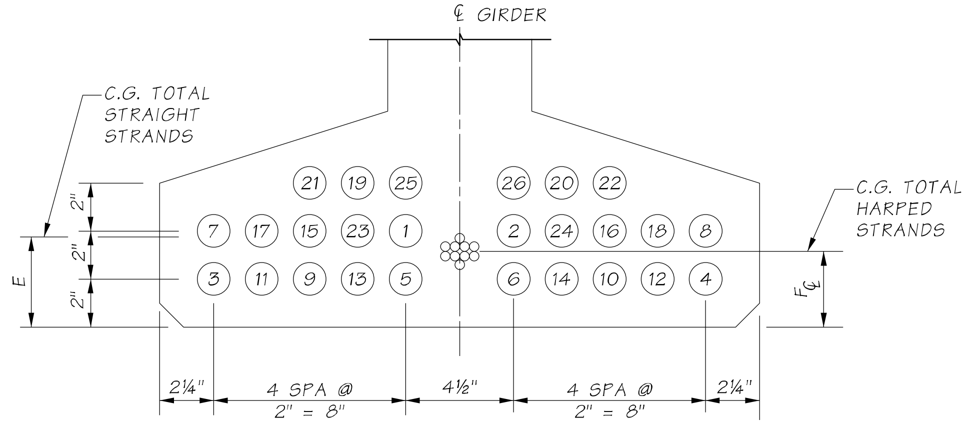
BRIDGE SHEET NO. B8

SR 518 FILE NO. ____ SHEET ____



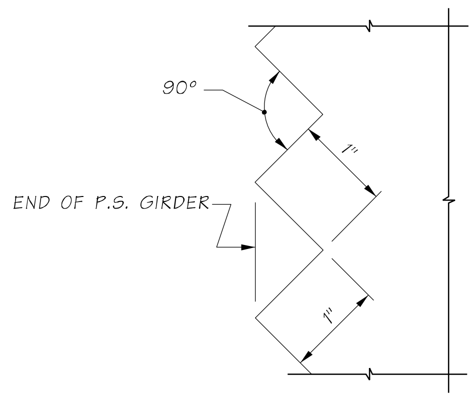
STRAND PATTERN AT GIRDER END

HARPED STRAND LOCATION SEQUENCE SHALL BE AS SHOWN (1), (2) ETC.



STRAND PATTERN AT ℄ SPAN

STRAIGHT STRAND LOCATION SEQUENCE SHALL BE AS SHOWN (1), (2) ETC.



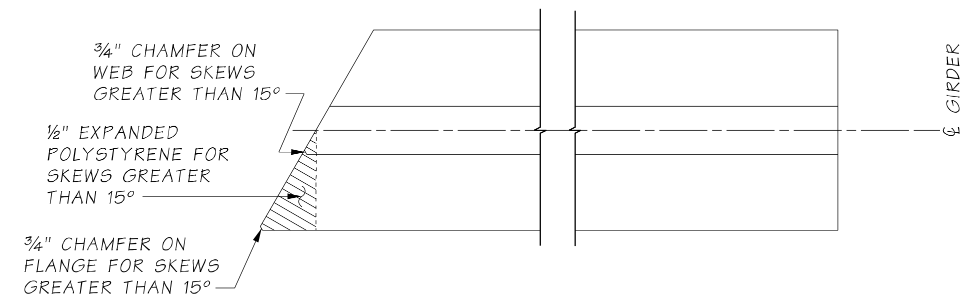
SAWTOOTH DETAILS

⟨1⟩

GIRDER SCHEDULE

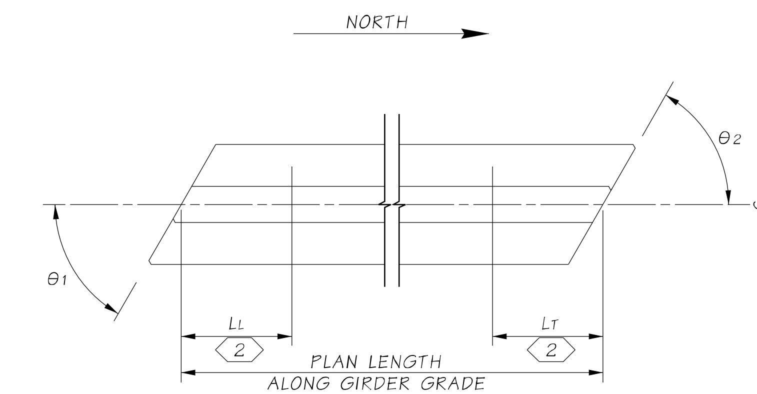
"A" DIMENSION AT ℄ PIER = 9" @ PIER 2; = 11½" @ PIERS 3

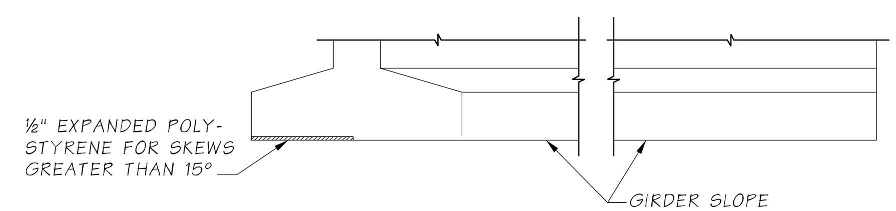
SPAN	GIRDER	GIRDER SERIES	L	LL	LT	θ1 (DEG.)	θ2 (DEG.)	PLAN LENGTH (ALONG GIRDER GRADE) (SEE GIRDER NOTE 1 ON BR. SHT. B8)	MIN. CONC. COMP. STRENGTH @ 28-DAYS F'C (KSI)	MIN. CONC. COMP. STRENGTH @ RELEASE F'CI (KSI)	HARPED NO. OF STRANDS	HARPED JACKING FORCE (KIPS)	STRAIGHT NO. OF STRANDS	STRAIGHT JACKING FORCE (KIPS)	TEMPORARY NO. OF STRANDS	TEMPORARY JACKING FORCE (KIPS)	LOCATION OF C.G. STRANDS E	LOCATION OF C.G. STRANDS F℄	LOCATION OF C.G. STRANDS Fo	C	MIDSPAN VERTICAL DEFLECTION D LOWER BOUND @ 40 DAYS	MIDSPAN VERTICAL DEFLECTION D UPPER BOUND @ 120 DAYS
2	6	W74G	3'-0"	6'-1½"	6'-1½"	60°	60°	111'-0"	8.3	6.5	10	439.4	26	1142.5	4	175.8	3¾"	4"	8"	⅞"	1¾"	4⅛"



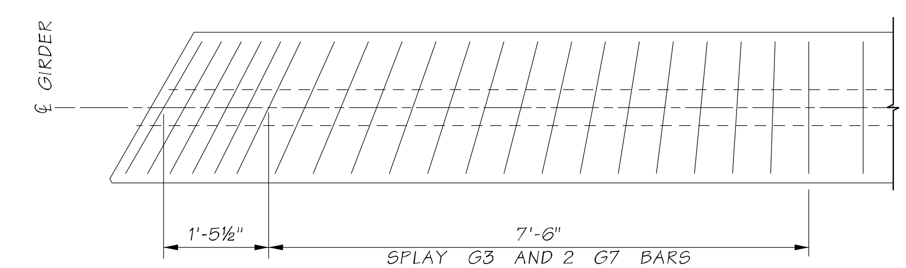
PLAN

BOTTOM FLANGE SPALL PROTECTION





ELEVATION



TRANSVERSE REINFORCING SKEWED ENDS

ONLY TRANSVERSE REINF. SHOWN

NOTES:

⟨1⟩ SAWTEETH ARE FULL WIDTH - USE SAWTOOTH KEYS FROM BOTTOM OF BOTTOM FLANGE TO BOTTOM OF LOWEST HARPED STRAND AS WELL AS TOP FLANGE ADJACENT TO HARPED STRANDS AS SHOWN IN VIEW B - GIRDER DETAILS 1 OF 3

⟨2⟩ LL AND LT ARE SHIPPING SUPPORT LOCATIONS AT SOUTH AND NORTH ENDS, RESPECTIVELY.

SR 518 FILE NO. ____ SHEET ____

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkal\d0799822\XL_B09_GirderDetails2.dgn					
Supervisor							
Designed By	T. TANG						
Checked By	M. BAUGHMAN						
Detailed By	M. AASAL						
Bridge Projects Engr.	M. ROSA						
Prelim. Plan By							
Architect/Specialist		DATE	REVISION	BY	APP'D		

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 22A019

BRIDGE AND STRUCTURES OFFICE

MATTHEW D. BAUGHMAN — STATE OF WASHINGTON — PROFESSIONAL ENGINEER — STRUCTURAL

SEE SHEET CT1 DATE

P.E. STAMP BOX

Washington State Department of Transportation

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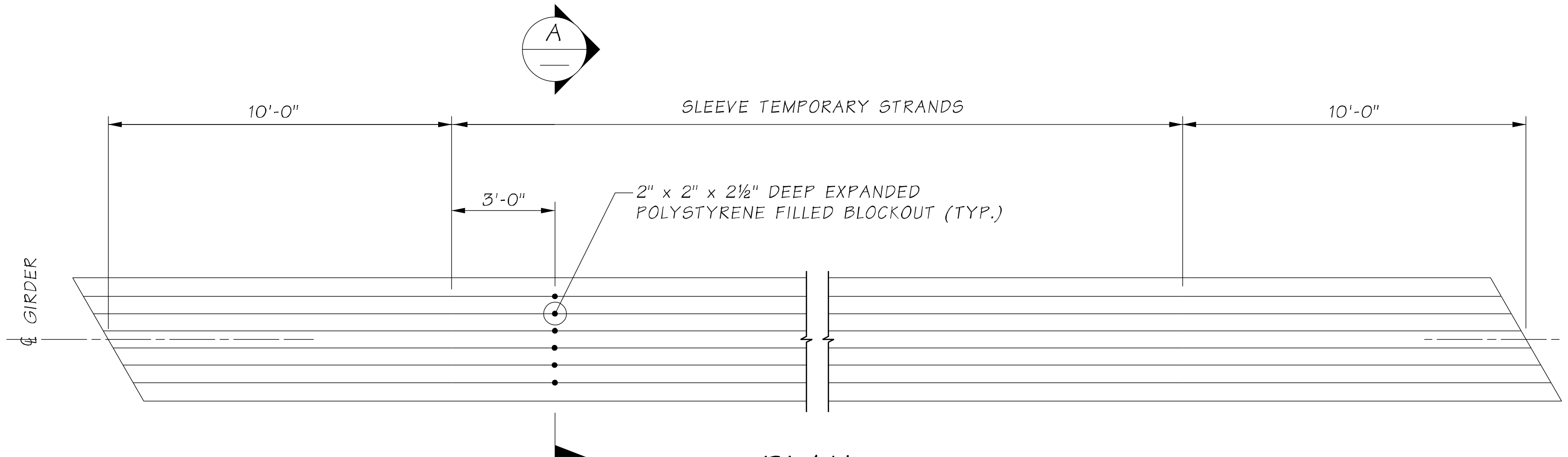
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

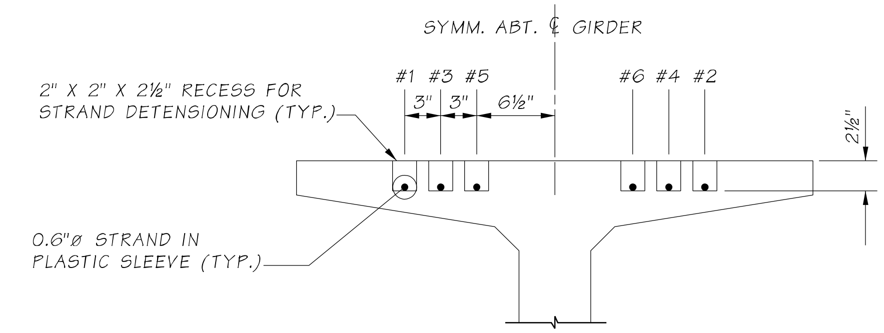
CONCRETE GIRDER DETAILS 2 OF 3

BRIDGE SHEET NO. B9

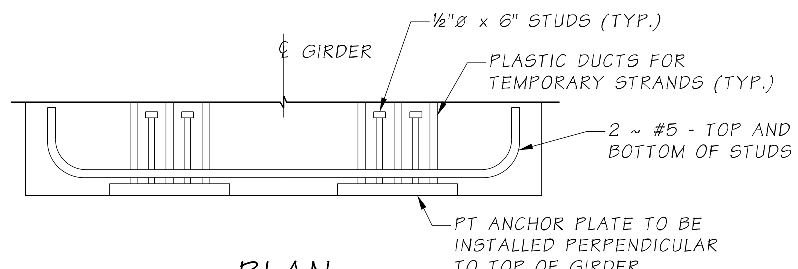
SHEET 15 OF 43 SHEETS



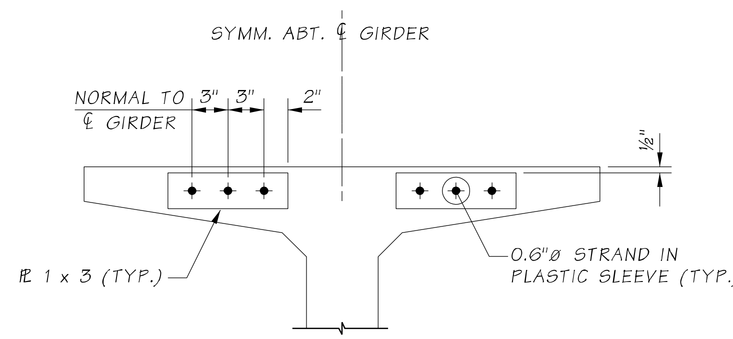
PLAN
PRETENSIONED TEMPORARY TOP STRANDS
1



SECTION A



PLAN
TEMPORARY STRAND POST-TENSIONED ALTERNATE



END VIEW
TEMPORARY STRAND POST-TENSIONED ALTERNATE

ADJUST G4 BARS TO CLEAR THE STEEL PLATE

NOTES:

1. POST-TENSIONED TEMPORARY TOP STRANDS SIMILAR, EXCEPT 10'-0" LENGTH OF BONDING OCCURS AT ONE END ONLY. THE OPPOSING END IS ANCHORED WITH PLATES AND STRAND CHUCKS. SEE "GIRDER SCHEDULE" FOR NUMBER OF TEMPORARY STRANDS REQUIRED.

SR 518 FILE NO. ____ SHEET ____

Bridge Design Engr.	B. KHALEGHI
Supervisor	
Designed By	T. TANG
Checked By	M. BAUGHMAN
Detailed By	M. AASAL
Bridge Projects Engr.	M. ROSA
Prelim. Plan By	
Architect/Specialist	

c:\pwwork\dklypw2\mkal\d0799822\XL_B10_GirderDetails3.dgn

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 22A019

BRIDGE AND STRUCTURES OFFICE

MATTHEW D. BAUGHMAN — STATE OF WASHINGTON — PROFESSIONAL ENGINEER — STRUCTURAL

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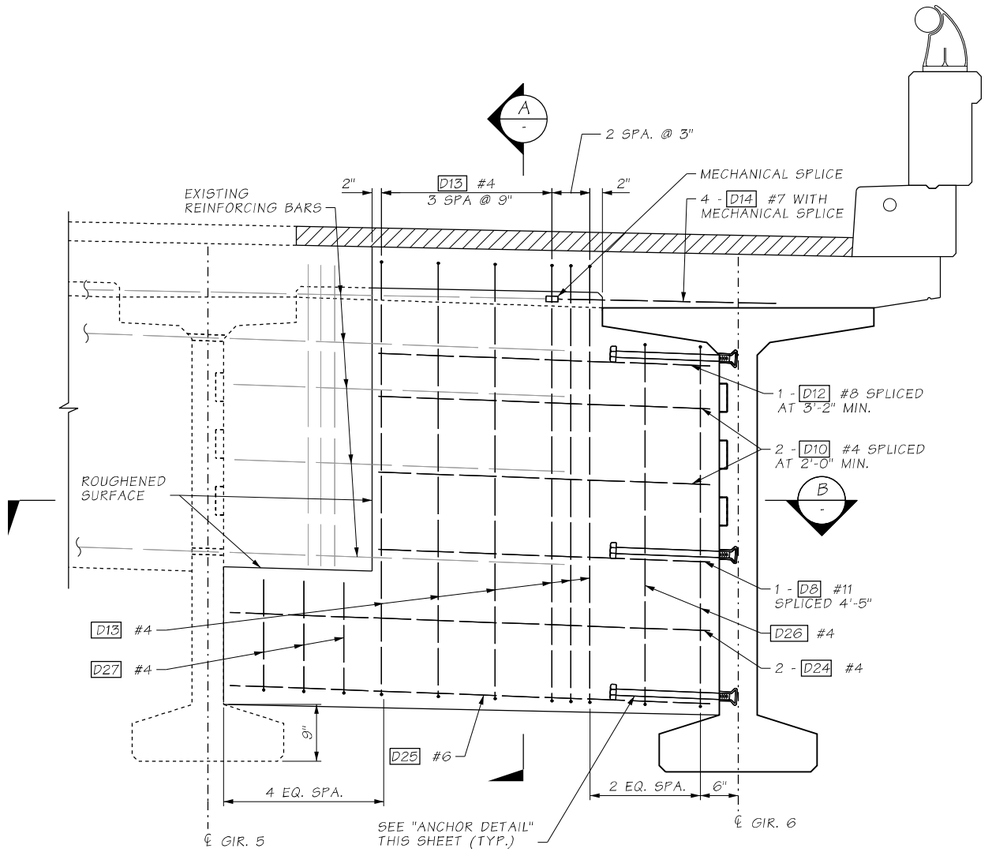
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

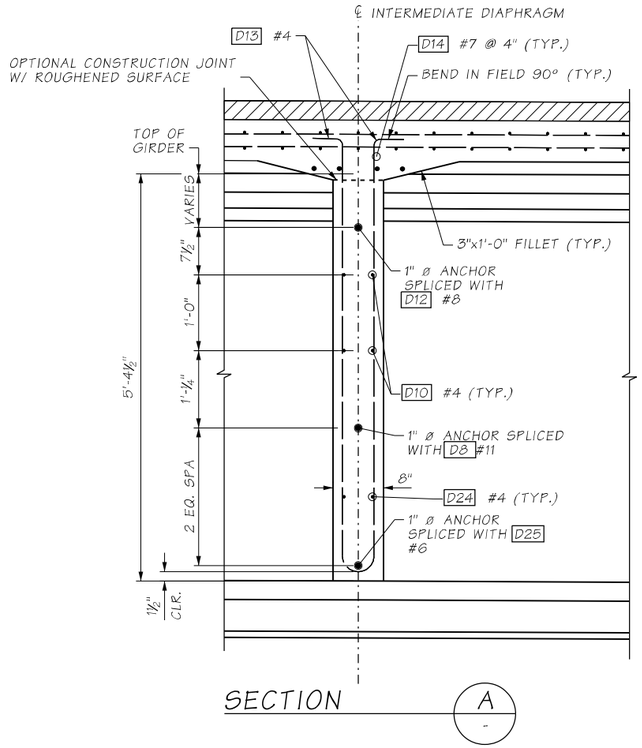
CONCRETE GIRDER DETAILS 3 OF 3

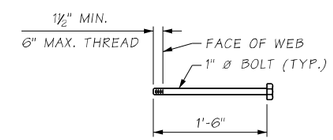
BRIDGE SHEET NO. B10



TYPICAL INTERMEDIATE DIAPHRAGM ELEVATION

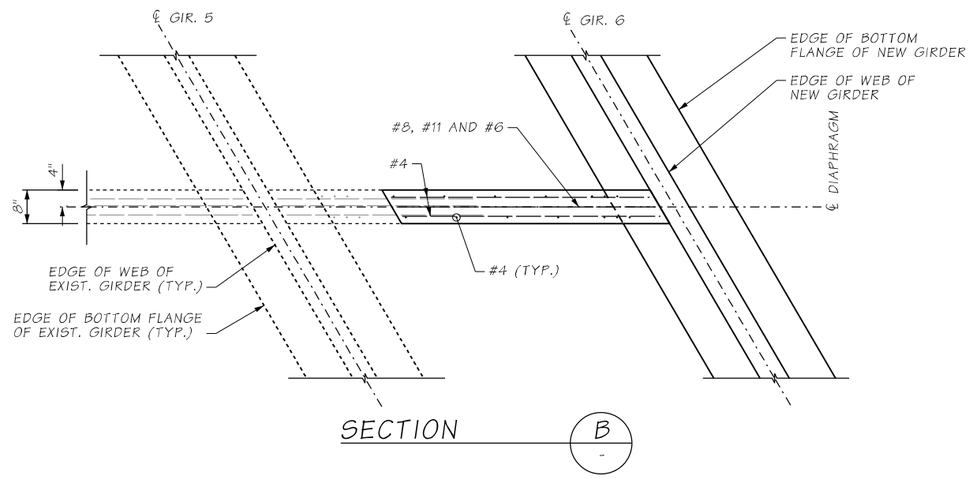
DIMENSIONS SHOWN ARE ALONG THE INTERMEDIATE DIAPHRAGM





ANCHOR DETAILS

ASTM A307



SR 518 FILE NO. ____ SHEET ____

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkall\d0799822\XL_B11_IntDiaphragm.dgn			REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor					10	WASH.			
Designed By	T. TANG				JOB NUMBER 22A019				
Checked By	M. BAUGHMAN								
Detailed By	M. AASAL								
Bridge Projects Engr.	M. ROSA								
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

BRIDGE AND STRUCTURES OFFICE

MATTHEW D. BAUGHMAN — STATE OF WASHINGTON — STRUCTURAL ENGINEER — PROFESSIONAL ENGINEER

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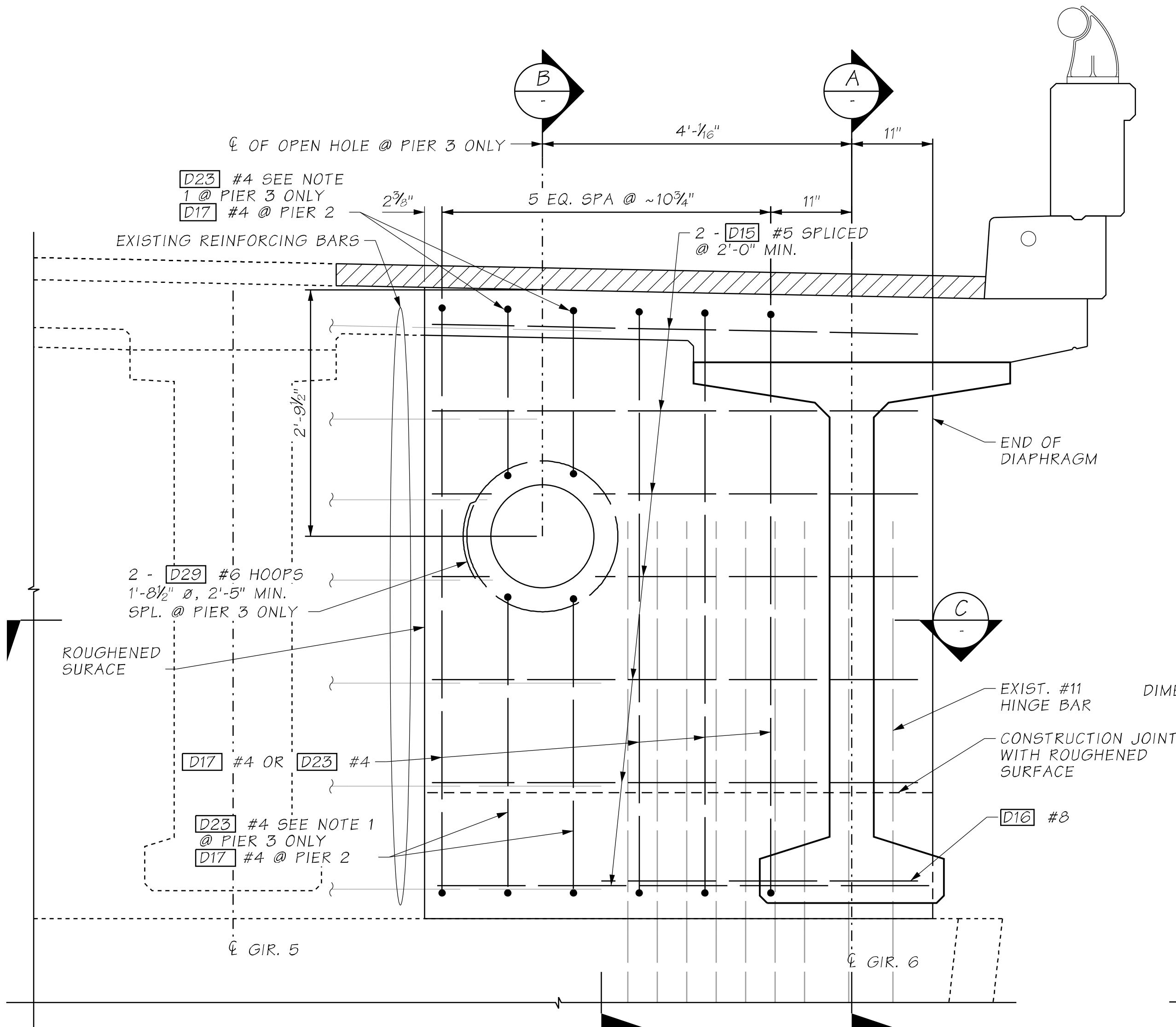
24TH AVENUE S BRIDGE GIRDER REPLACEMENT
BRIDGE NO. 518/12

INTERMEDIATE DIAPHRAGM DETAILS

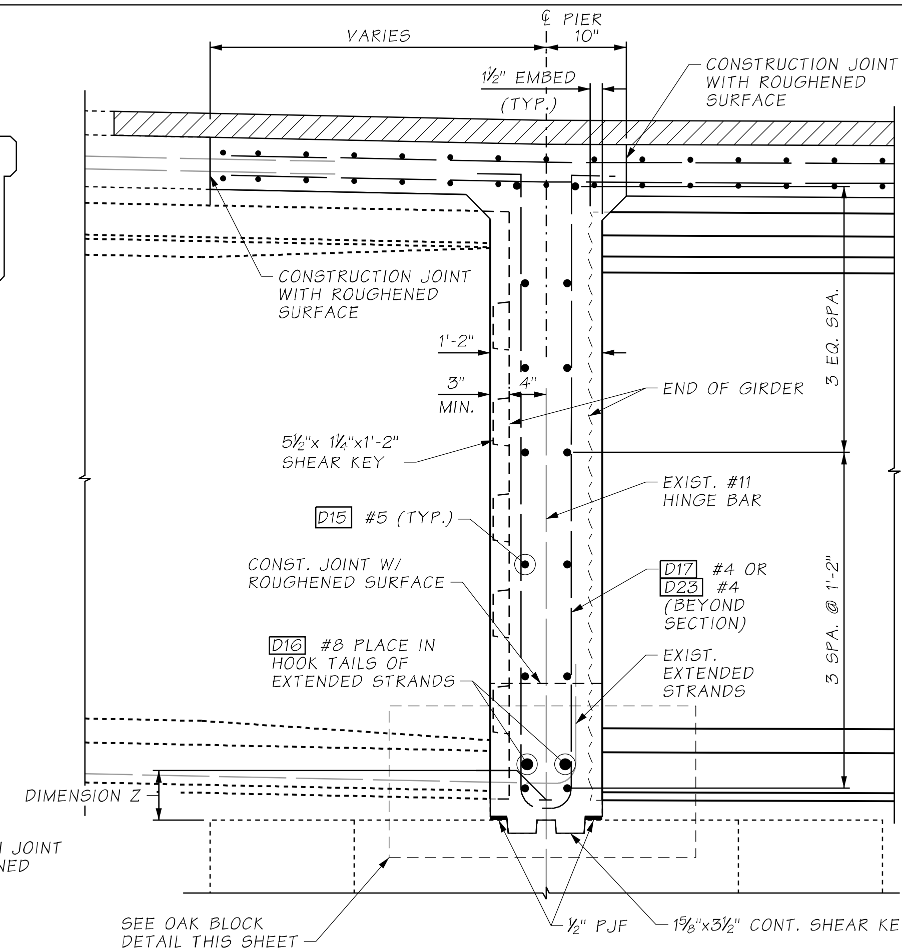
BRIDGE SHEET NO. B11

SHEET 17 OF 43 SHEETS



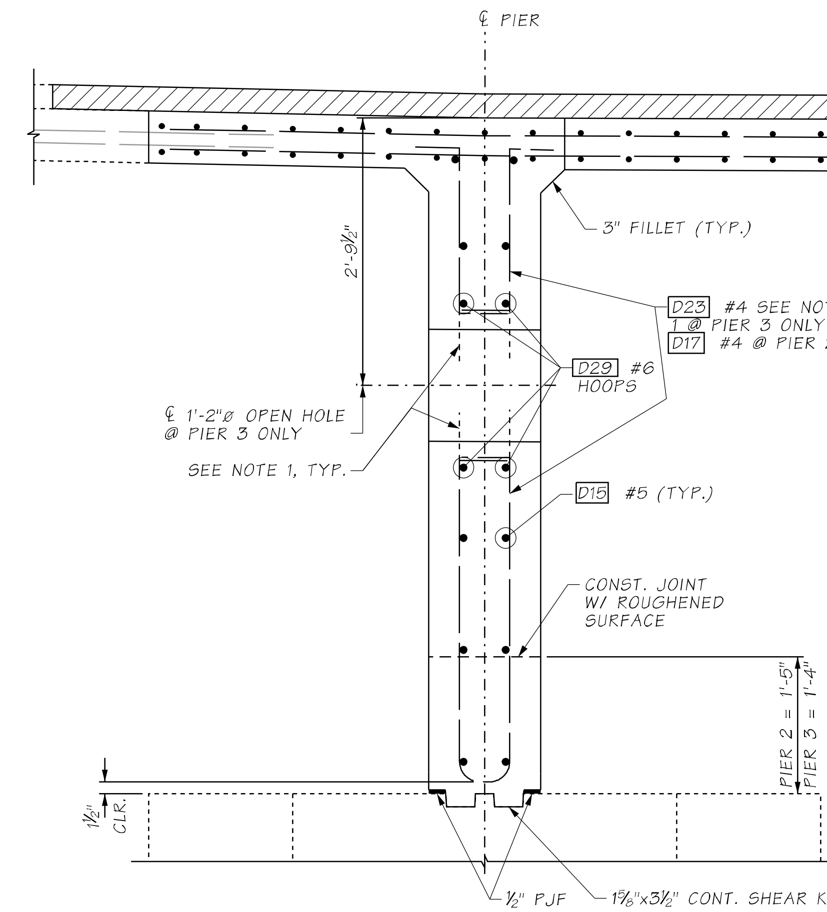
TYPICAL PIER DIAPHRAGM ELEVATION

DIMENSIONS SHOWN ARE ALONG THE PIER DIAPHRAGM



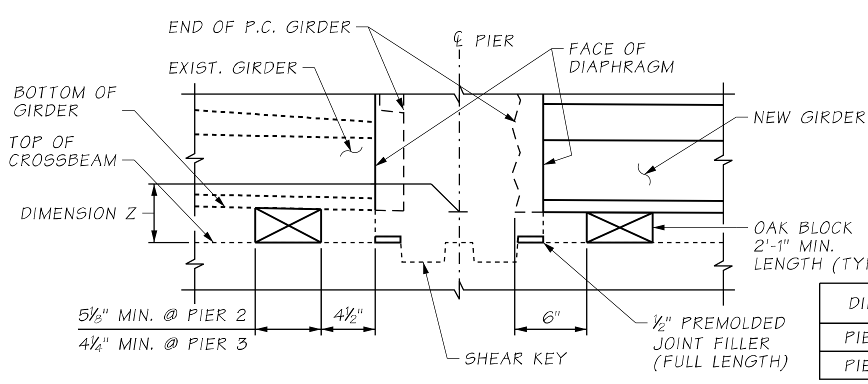
SECTION A

PIER 3 SHOWN, PIER 2 SIMILAR AT GIRDER END



SECTION B

PIER 3 SHOWN, PIER 2 SIMILAR

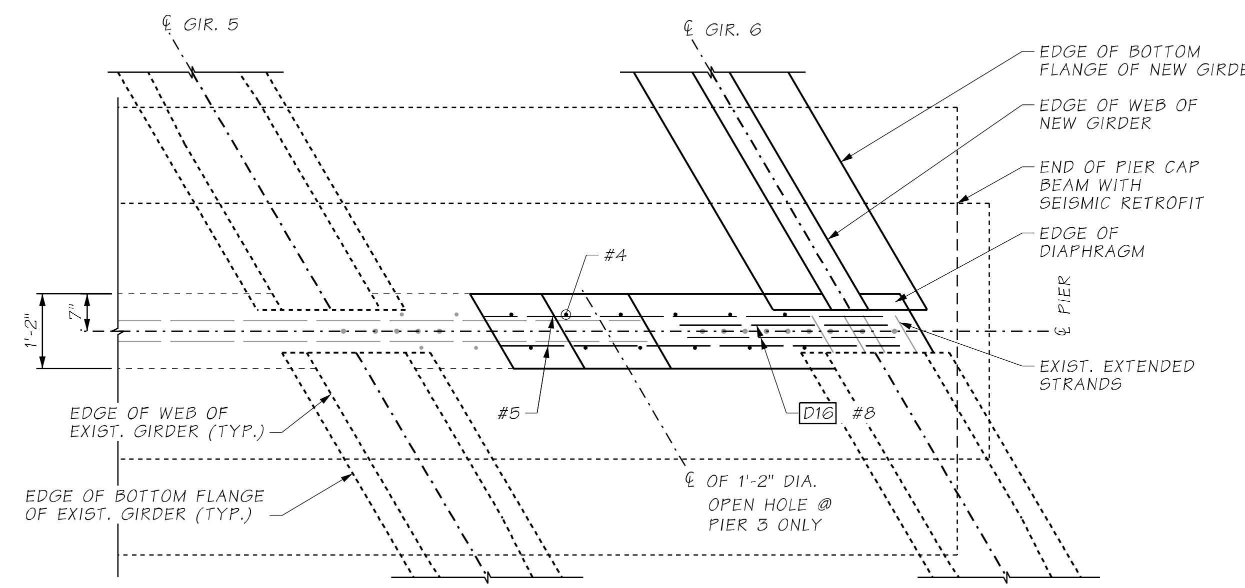


OAK BLOCK DETAIL

OAK BLOCK PLACED PARALLEL TO FACE OF PIER CAP FULL WIDTH OF BOTTOM FLANGE. REMOVE AFTER PLACING TRAFFIC BARRIER.

DIMENSION Z	
PIER 2	5⅛"
PIER 3	4¼"

DIMENSION Z IS THE DISTANCE BETWEEN THE TOP OF CROSSBEAM AND PROJECTED BOTTOM OF GIRDER AT ℄ OF PIER.



SECTION C

PIER 2 SHOWN, PIER 3 SIMILAR

NOTES:

1. CUT STIRRUPS 4" ABOVE AND BELOW OPEN HOLE EDGE. FIELD BEND CUT BARS 90°, PROVIDING 6" HOOKS.

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkal\d0799822\XL_B12_PierDiaphragm.dgn		
Supervisor				
Designed By	T. TANG			
Checked By	M. BAUGHMAN			
Detailed By	M. AASAL			
Bridge Projects Engr.	M. ROSA			
Prelim. Plan By				
Architect/Specialist		DATE	REVISION	BY / APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 22A019				

BRIDGE AND STRUCTURES OFFICE

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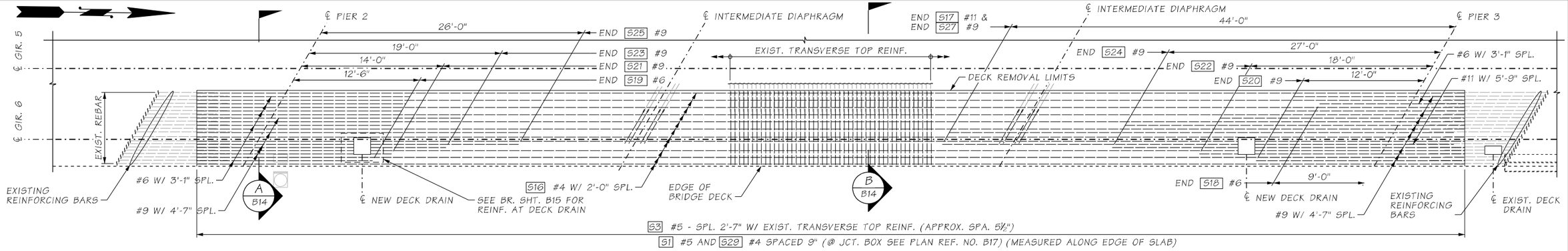
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

PIER DIAPHRAGM DETAILS

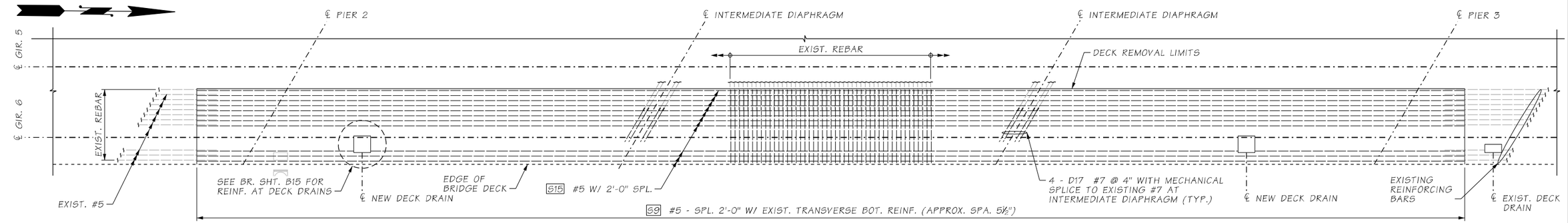
BRIDGE SHEET NO. B12

SHEET 18 OF 43 SHEETS

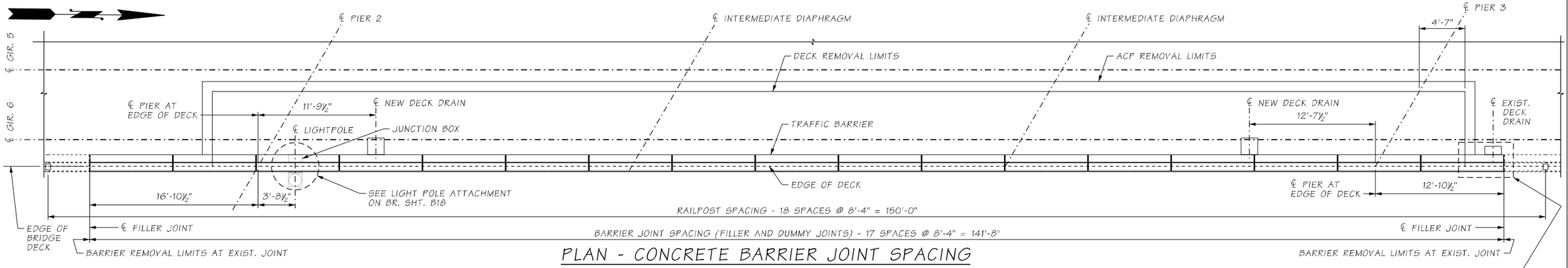
SR 518 FILE NO. ____ SHEET ____



BRIDGE DECK PLAN - TOP MAT REINFORCEMENT



BRIDGE DECK PLAN - BOT. MAT REINFORCEMENT



PLAN - CONCRETE BARRIER JOINT SPACING

NOTES:

1. TRANSVERSE REINFORCEMENT SHALL BE PLACED NORMAL TO GIRDERS.
2. ALL LONGITUDINAL REINFORCING SHALL BE PLACED PARALLEL TO GIRDERS, EXCEPT AS NOTED.
3. NUMBER AND LOCATION OF LAP SPLICES FOR LONGITUDINAL REINFORCEMENT AT CONTRACTOR'S OPTION. LAP SPLICES IN ADJACENT REINFORCING BARS SHALL BE STAGGERED 4'-0" MINIMUM FROM ℄ SPLICE TO ℄ SPLICE.
4. REFER TO BR. SHT. B18 FOR LIGHT POST DETAILS.
5. REFER TO BR. SHT. B15 FOR DRAINAGE DETAILS.
6. FOR PIER 2 AND PIER 3 DIAPHRAGM REINFORCEMENT DETAILS, SEE BR. SHT. B12.
7. FOR INTERMEDIATE DIAPHRAGM REINFORCEMENT DETAILS, SEE BR. SHT. B11.
8. REFER TO BR. SHT. B16 FOR BARRIER AND RAIL DETAILS.

SR 518 FILE NO. ____ SHEET

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkal\d0799822\XL_B13_DeckPlan.dgn							
Supervisor									
Designed By	T. TANG								
Checked By	M. BAUGHMAN								
Detailed By	M. AASAL								
Bridge Projects Engr.	M. ROSA								
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 22A019				

BRIDGE
AND
STRUCTURES
OFFICE

MATTHEW D. BAUGHMAN — STATE OF WASHINGTON — PROFESSIONAL ENGINEER
SEE SHEET CTI
DATE
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Washington State Department of Transportation

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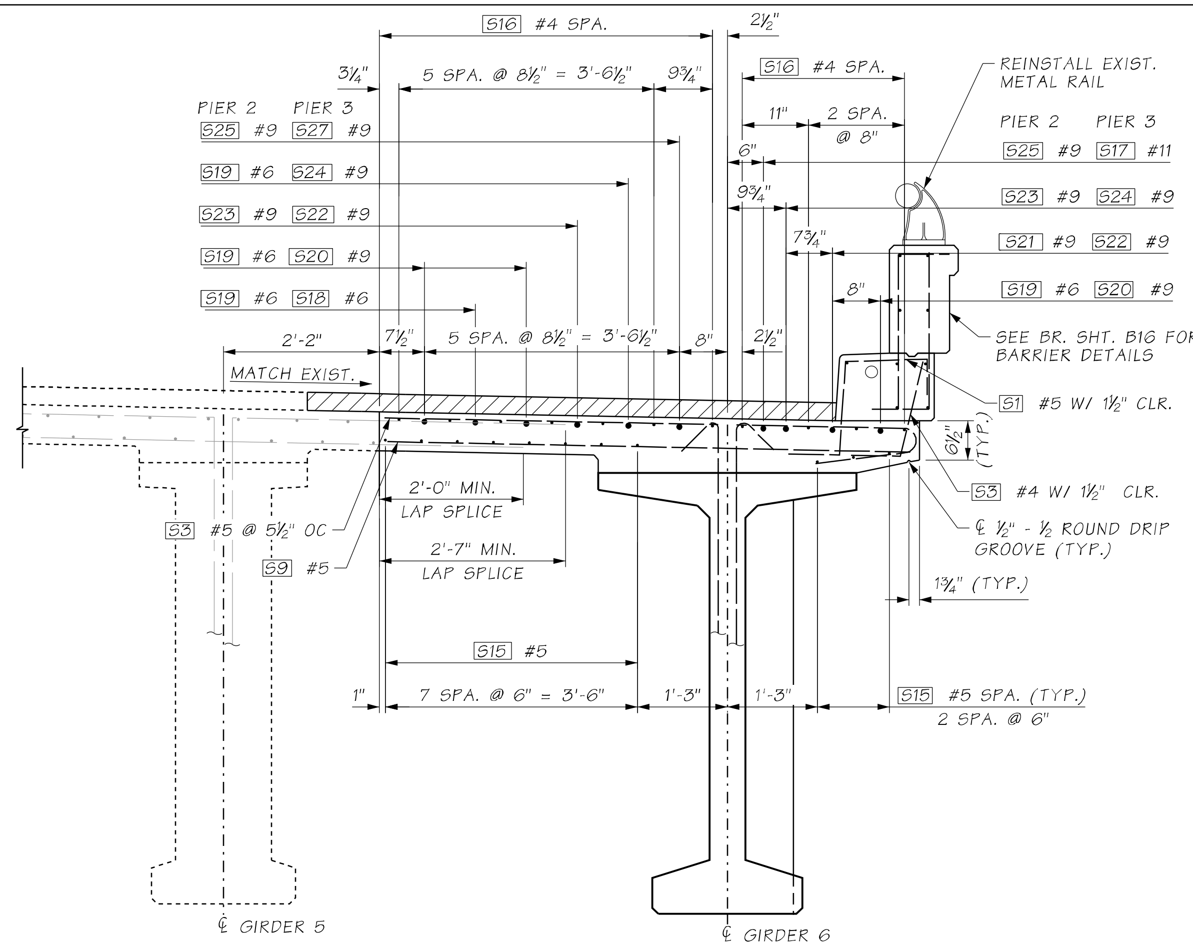
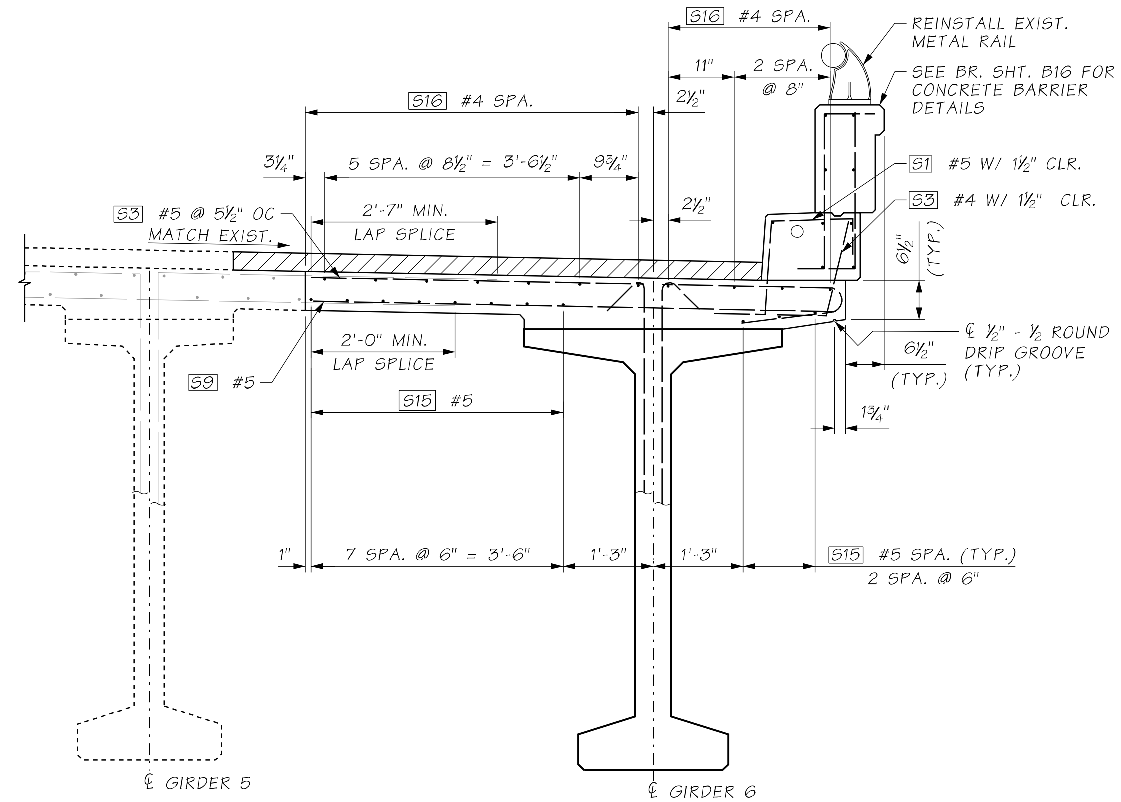
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

DECK AND BARRIER PLANS

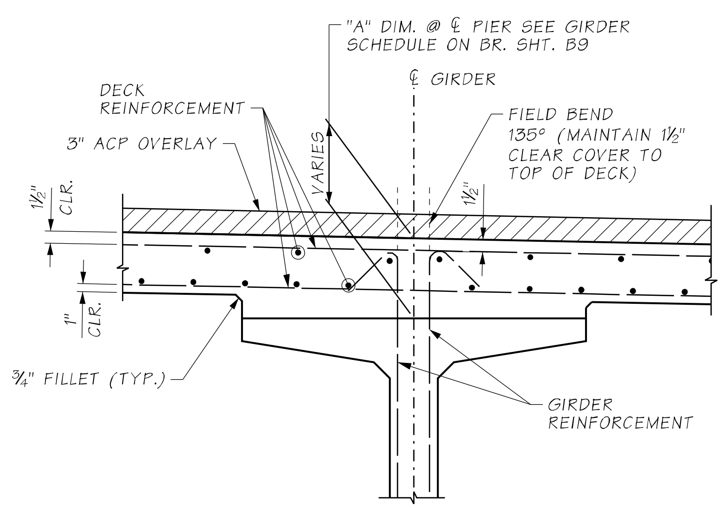
BRIDGE SHEET NO. B13
SHEET 19 OF 43 SHEETS



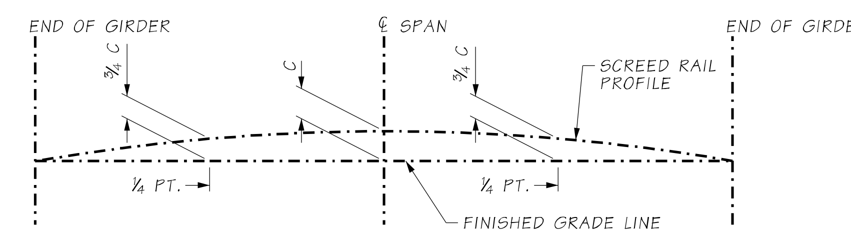
SECTION A / B13
NEAR PIER 2 AND PIER 3



SECTION B / B13
NEAR MID-SPAN



TYPICAL SECTION THROUGH GIRDER



SCREED SETTING DIMENSIONS
FOR DIMENSION "C" SEE GIRDER SCHEDULE ON BR. SHT. B9

Bridge Design Engr.	B. KHALEGHI
Supervisor	
Designed By	T. TANG
Checked By	M. BAUGHMAN
Detailed By	M. AASAL
Bridge Projects Engr.	M. ROSA
Prelim. Plan By	
Architect/Specialist	

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DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 22A019

BRIDGE AND STRUCTURES OFFICE

SEE SHEET C1 DATE
P.E. STAMP BOX

Washington State Department of Transportation

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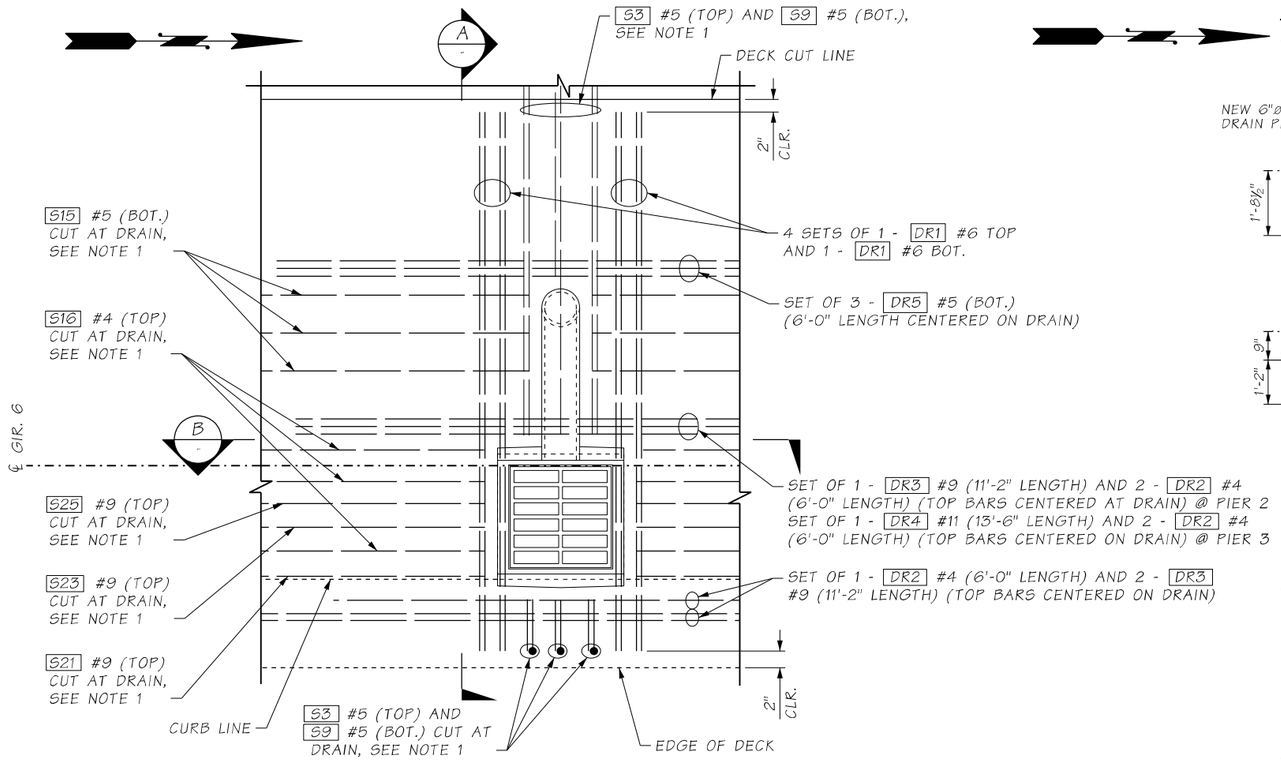
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

DECK DETAILS

BRIDGE SHEET NO. B14

SHEET 20 OF 43 SHEETS

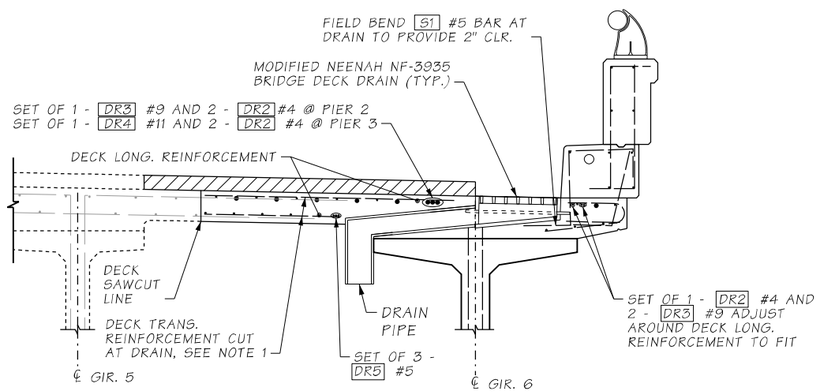
SR 518 FILE NO. ____ SHEET ____



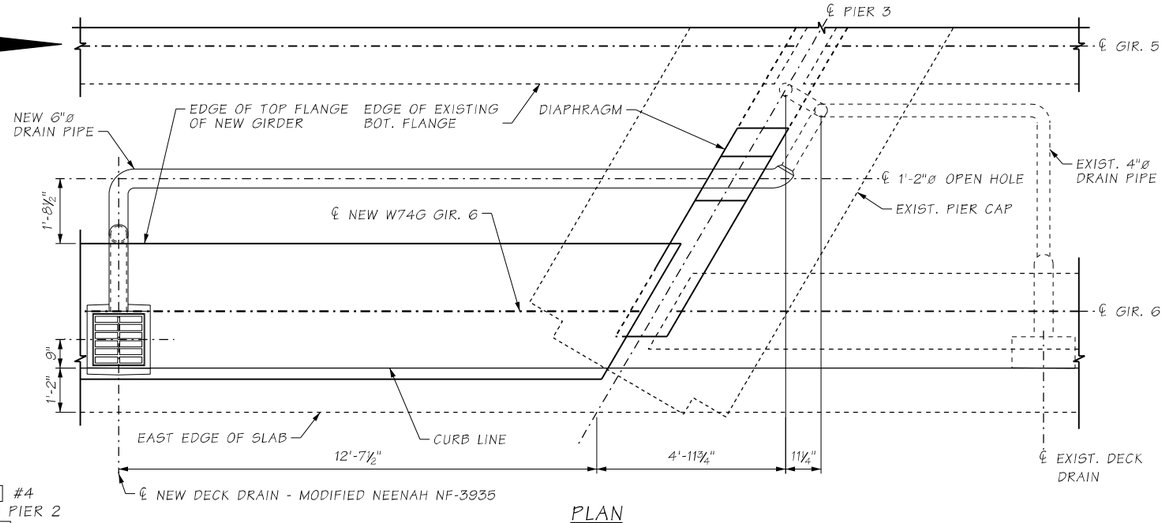
PLAN

DECK DRAIN JUST NORTH OF PIER 2

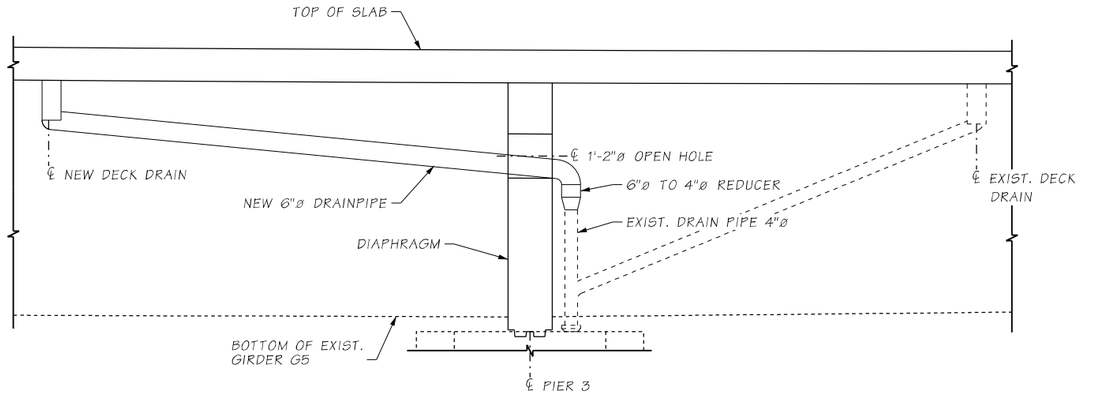
DETAIL IS FOR PIER 2, OTHERS SIMILAR
TRIM LONG. AND TRANS. BARS AS NEEDED, SEE NOTE 1
NOT ALL BARS ARE SHOWN FOR CLARITY



SECTION A
LOOKING NORTH
TYPICAL DECK DRAIN
ADDITIONAL LONGITUDINAL BARS



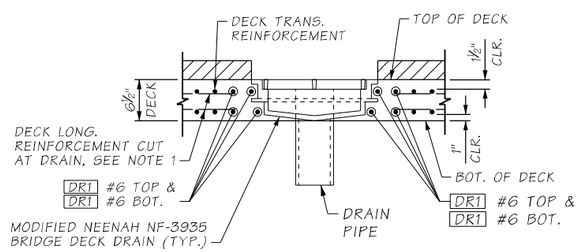
PLAN



SECTION

PIER 3 - BRIDGE DRAIN AND PIER DIAPHRAGM

SEE NOTE 2 AND 3.
SIMILAR AT PIER 2, SEE NOTE 2 AND 4.



SECTION B
LOOKING EAST
TYPICAL DECK DRAIN
ADDITIONAL TRANSVERSE BARS

NOTES:

1. TRIM BARS IN FIELD AS REQUIRED TO MAINTAIN 2" CLEARANCE TO DECK DRAIN.
2. CONTRACTOR SHALL VERIFY NEENAH NF-3935 CONNECTION WITH EXISTING DRAIN PIPES.
3. AT PIER 3, REATTACH EXISTING BRIDGE DRAIN PIPE. WHEN NECESSARY, USE OPEN HOLE FOR PASS THROUGH PIER 3 DIAPHRAGM.
4. AT PIER 2, REATTACH EXISTING BRIDGE DRAIN PIPE.

SR 518 FILE NO. ____ SHEET ____

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkall\d0799822\XL_B15_DrainDet.dgn				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor						10	WASH.			
Designed By	T. TANG					JOB NUMBER 22A019				
Checked By	M. BAUGHMAN									
Detailed By	M. AASAL									
Bridge Projects Engr.	M. ROSA									
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

BRIDGE AND STRUCTURES OFFICE

MATTHEW D. BAUGHMAN — STATE OF WASHINGTON — 24662 — PROFESSIONAL ENGINEER
SEE SHEET CT1
DATE
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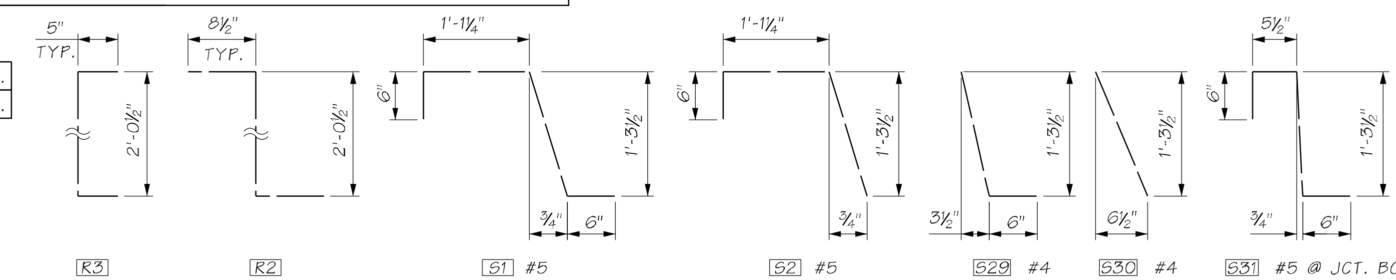
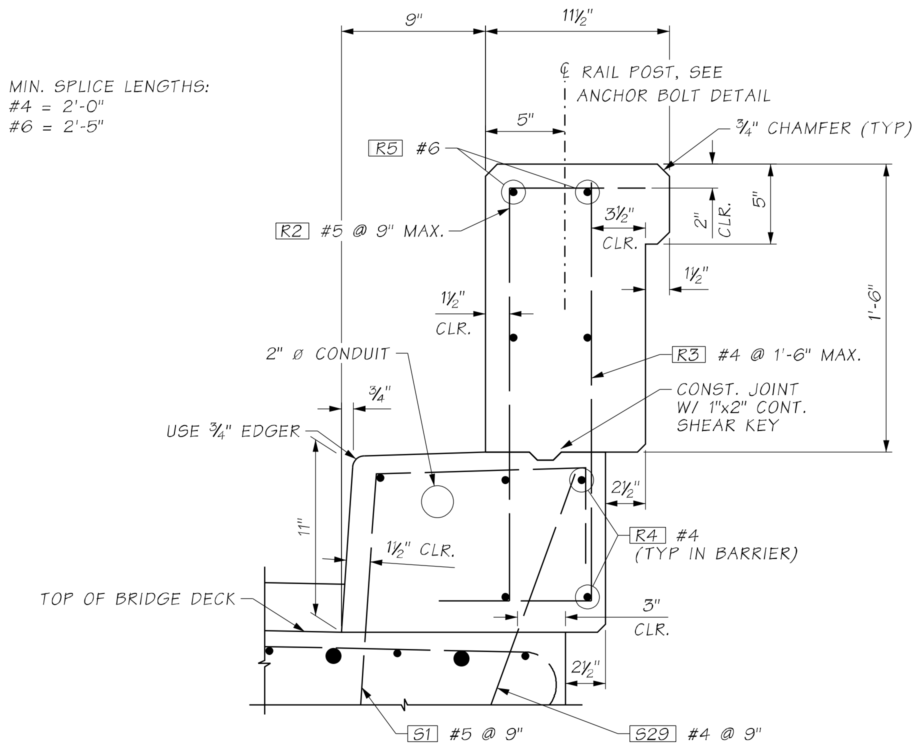
SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT
BRIDGE NO. 518/12

DECK AND DRAINAGE DETAILS

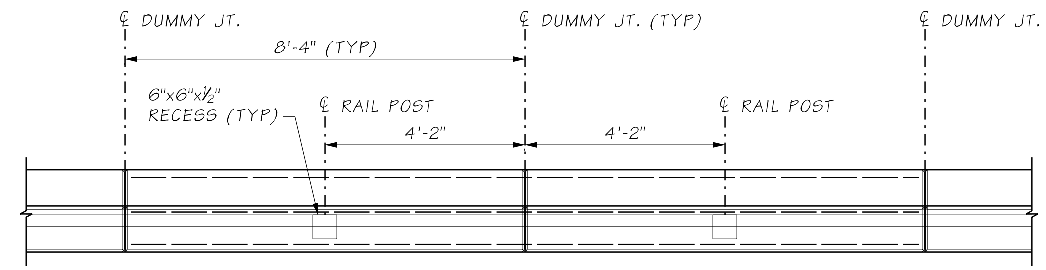
BRIDGE SHEET NO. B15
SHEET 21 OF 43 SHEETS

MARK	LOCATION	SIZE		BENDING DIAGRAM (ALL DIM. OUT TO OUT)
R2	BARRIER VERT. WEST FACE	5		
R3	BARRIER VERT. EAST FACE	4		
R4	BARRIER LONG	4	STR.	
R5	TOP BARRIER	6	STR.	
S1	BARRIER HOOK WEST FACE	5		
S2	BARRIER HOOK WEST FACE	5		
S29	BARRIER HOOK EAST FACE	4		
S30	BARRIER HOOK EAST FACE	4		
S31	BARRIER HOOK	5		



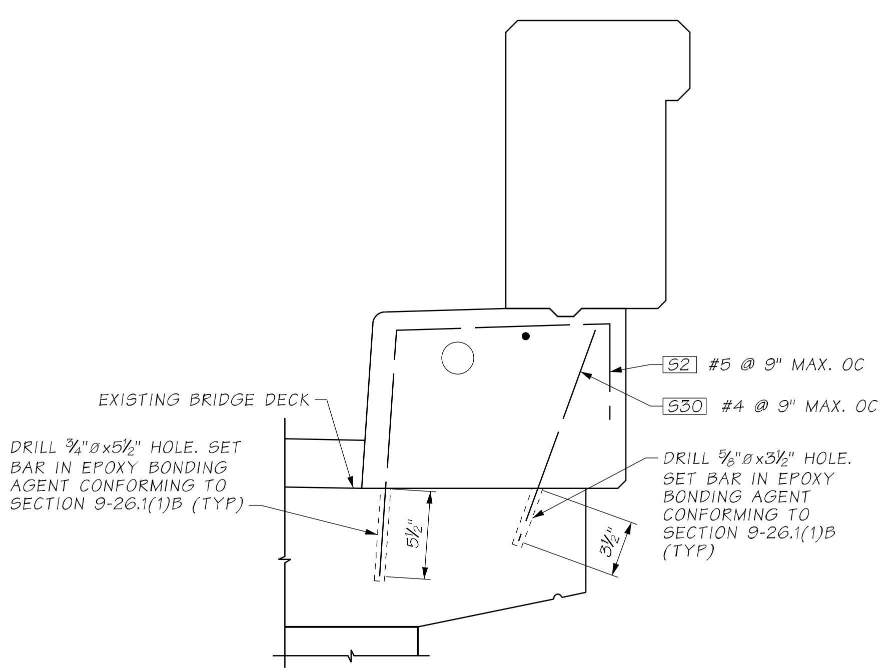


SECTION BARRIER



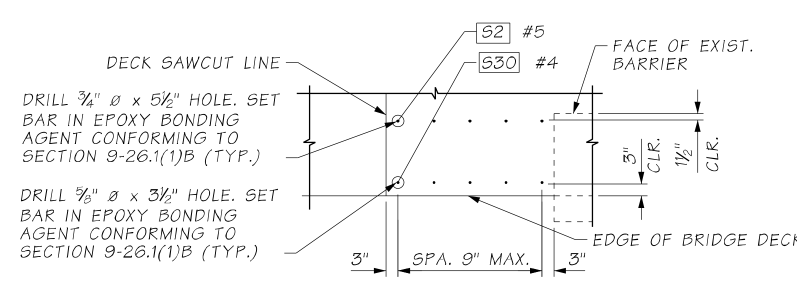
TYPICAL RAIL POST LAYOUT

SEE BR. SHT. B13 FOR JOINT LOCATIONS



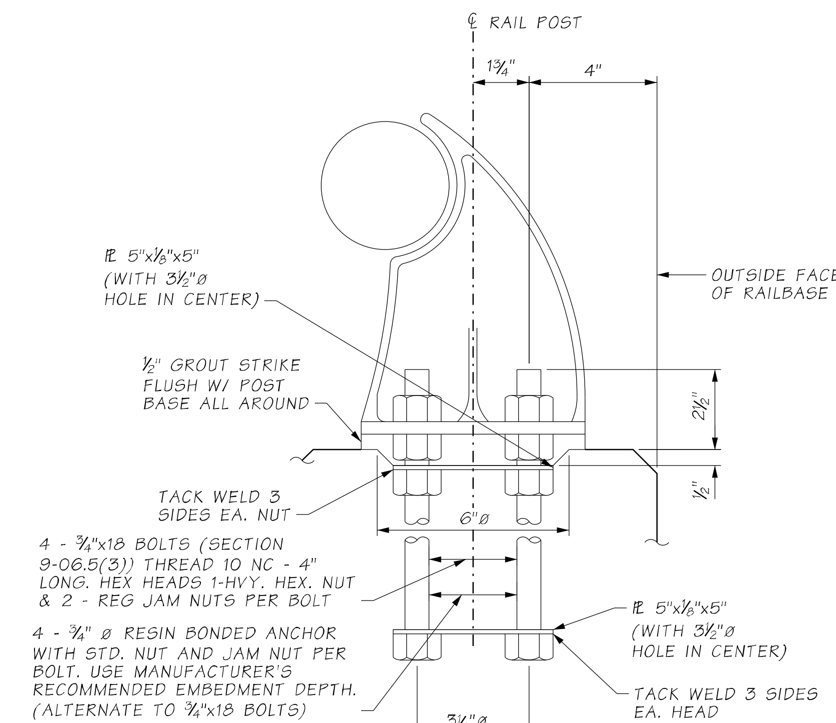
CONCRETE BARRIER OVER EXISTING BRIDGE DECK

FOR DETAILS NOT SHOWN, SEE "SECTION BARRIER"



DETAIL 1 / B13

SECTION NEAR PIER 3 SHOWN, PIER 2 SIMILAR. SEE "CONCRETE BARRIER OVER EXISTING BRIDGE DECK" THIS SHT.



RAIL POST ANCHOR BOLT DETAIL

BOLTS SHALL BE INSTALLED NORMAL TO RAILBASE BOTH LONGITUDINALLY & TRANSVERSELY

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkal\d0799822\XL_B16_BarrierDet1.dgn							
Supervisor					REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By	T. TANG				10	WASH.			
Checked By	M. BAUGHMAN								
Detailed By	M. AASAL				JOB NUMBER 22A019				
Bridge Projects Engr.	M. ROSA								
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

BRIDGE AND STRUCTURES OFFICE

MATTHEW D. BAUGHMAN, STATE OF WASHINGTON, PROFESSIONAL ENGINEER — SEE SHEET CT1 DATE — P.E. STAMP BOX

Washington State Department of Transportation

COWI

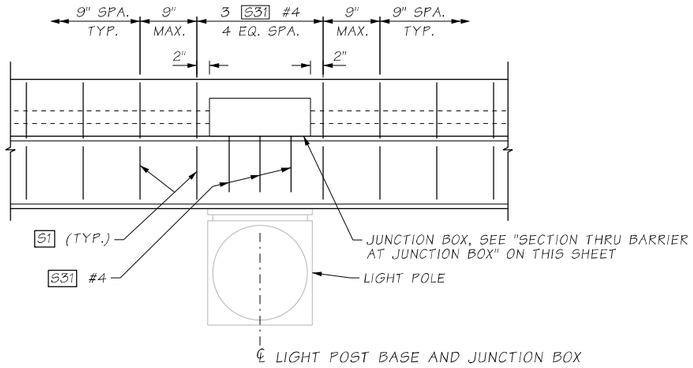
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

BARRIER DETAILS 1 OF 2
REBAR AND RAILING

BRIDGE SHEET NO. B16

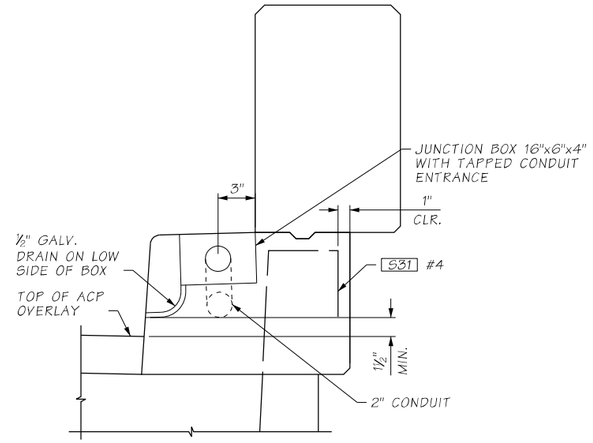
SHEET 22 OF 43 SHEETS

SR 518 FILE NO. ___ SHEET ___

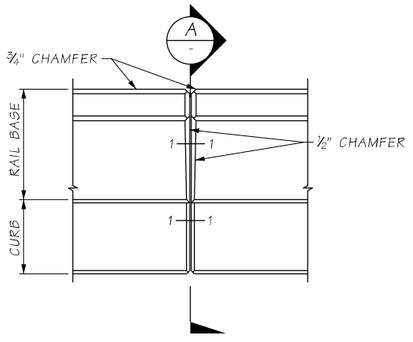


PLAN
DECK TO BARRIER BAR PLACEMENT NEAR JUNCTION BOX

FOR LOCATION SEE BR. SHT. B13 FOR "PLAN - CONCRETE BARRIER JOINT SPACING"

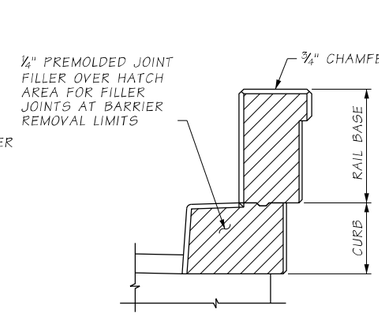


SECTION THRU BARRIER AT JUNCTION BOX (A)



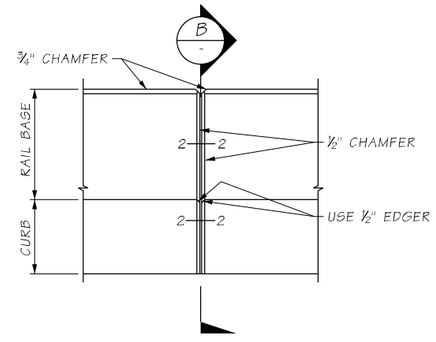
DUMMY JOINT - OUTSIDE ELEVATION

FOR LOCATION SEE BR. SHT. B13 FOR "PLAN - CONCRETE BARRIER JOINT SPACING"



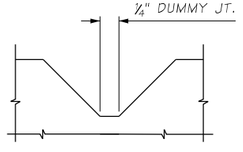
SECTION (B)

SIMILAR GEOMETRY FOR SECTION A

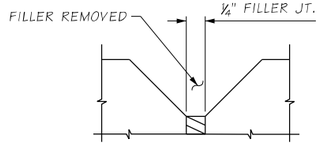


FILLER JOINT - INSIDE ELEVATION

AT BARRIER REMOVAL LIMITS. FOR LOCATION SEE BR. SHT. B13 "PLAN - CONCRETE BARRIER JOINT SPACING"



SECTION 1-1



SECTION 2-2

SR 518 FILE NO. ____ SHEET ____

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkal\d0799822\XL_B17_BarrierDet2.dgn							
Supervisor						REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By	T. TANG					10	WASH.			
Checked By	M. BAUGHMAN									
Detailed By	M. AASAL					JOB NUMBER 22A019				
Bridge Projects Engr.	M. ROSA									
Prelim. Plan By										
Architect/Specialist		DATE	REVISION	BY	APP'D					

BRIDGE AND STRUCTURES OFFICE

MATTHEW D. BAUGHMAN, STATE OF WASHINGTON, 22400, PROFESSIONAL ENGINEER
SEE SHEET CT1
DATE
P.E. STAMP BOX

Washington State Department of Transportation

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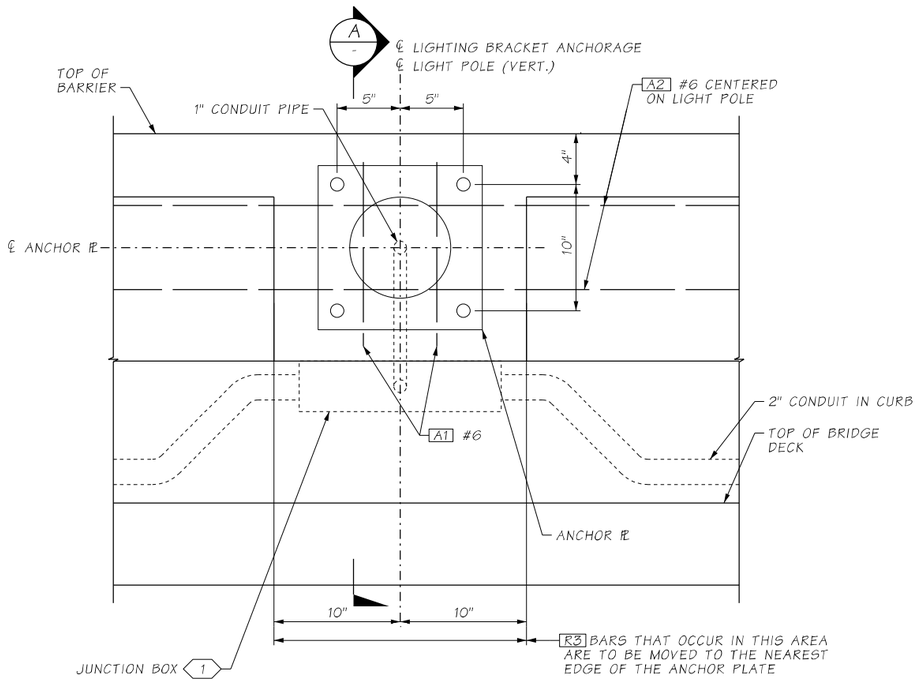
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

BARRIER DETAILS 2 OF 2
JUNCTION BOX AND JOINTS

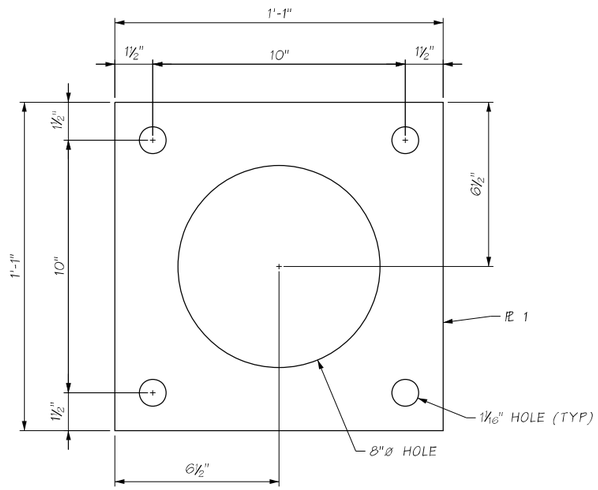
BRIDGE SHEET NO. B17

SHEET 23 OF 43 SHEETS



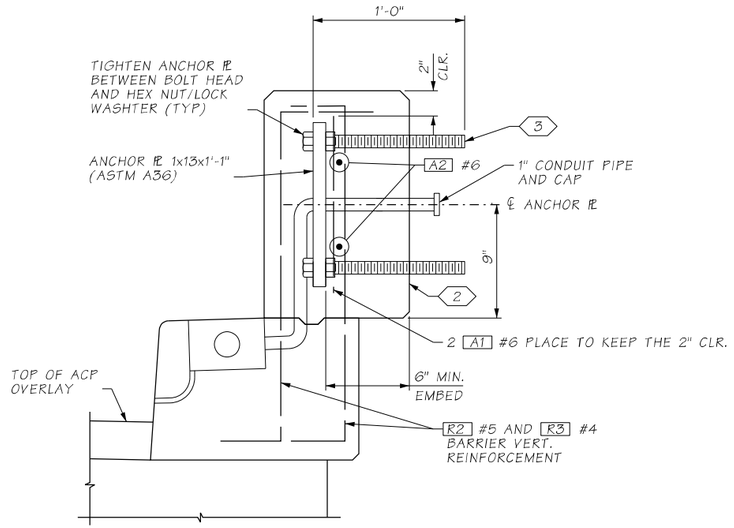
ELEVATION
LIGHTING BRACKET ANCHORAGE

FOR LOCATIONS, SEE BR. SHT. NO. B13 FOR "PLAN CONCRETE BARRIER JOINT SPACING"



ANCHOR PLATE

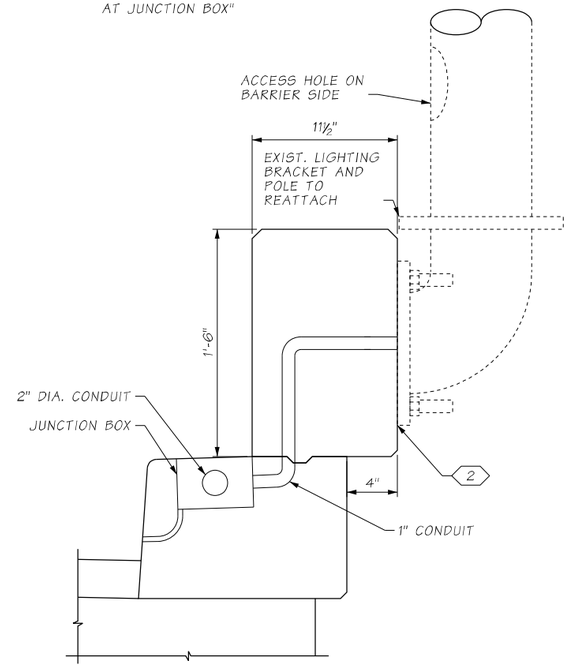
GALVANIZE PER AASHTO M 111



SECTION

FOR DETAILS NOT SHOWN, SEE BR. SHT. B17 FOR "SECTION THRU BARRIER AT JUNCTION BOX"

A -



SECTION AT LIGHT POLE SUPPORT

ANCHORAGE BARLIST			
MARK #	SIZE	LENGTH	BEND TYPE
A1	6	1'-3"	STRAIGHT
A2	6	5'-0"	STRAIGHT

LUMINAIRE NOTES:

1. INSTALL ALL CONDUIT RUNS SO THEY DRAIN TO A BRIDGE END OR PROVIDE DRAIN AT ALL LOW POINTS WITHIN CONDUIT RUN. SEE BR. SHT. B16 FOR BARRIER DIMENSIONS.

NOTES:

1. NEMA 4X IN STATIONARY FORM BARRIER, OR NEMA 3R IN SLIP FORM BARRIER. MOUNT JUNCTION BOX SO COVER IS FLUSH WITH BARRIER, CAN BE RECESSED UP TO ⅛".
2. CHIP OR FORM FACE OF BARRIER FLUSH UNDER SUPPORT ELBOW BASE PLATE. APPLY EPOXY BONDING AGENT TO SURFACE TO ASSURE UNIFORM BEARING SURFACE. SEE STANDARD SPECIFICATION SECTION 9-26.1
3. 1"Ø H.S. BOLT THREADED FULL LENGTH WITH HARDENED LOCK WASHER AND HEAVY HEX NUT (TYP.). SEE STANDARD SPECIFICATION SECTION 9-26.6(5).

SR 518 FILE NO. ____ SHEET ____

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkall\d0799822\XL_B18_LightPostDet.dgn							
Supervisor									
Designed By	T. TANG								
Checked By	M. BAUGHMAN								
Detailed By	M. AASAL								
Bridge Projects Engr.	M. ROSA								
Prelim. Plan By									
Architect/Specialist		DATE	REVISION	BY	APP'D				

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			
JOB NUMBER 22A019				

BRIDGE AND STRUCTURES OFFICE

MATTHEW D. BAUGHMAN — STATE OF WASHINGTON — PROFESSIONAL ENGINEER

SEE SHEET CT1 DATE

P.E. STAMP BOX

Washington State Department of Transportation

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SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT
BRIDGE NO. 518/12

LIGHT POLE DETAILS

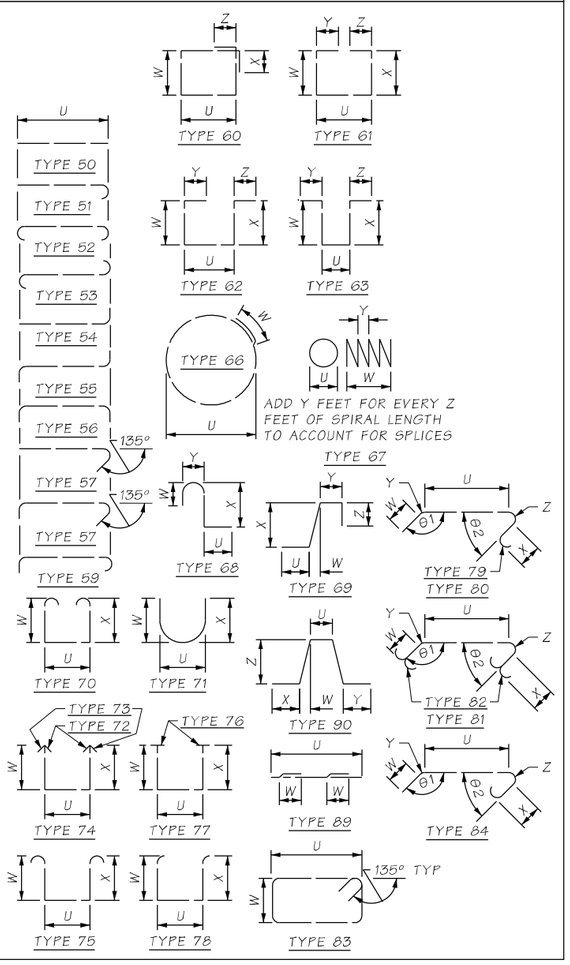
BRIDGE SHEET NO. B18

SHEET 24 OF 43 SHEETS

S = Bar is included in substruct. quantities.
F = Bar to be field welded.
T = Tie or Stirrup.
E = Bar is to be epoxy coated.
V = Bar dimensions vary between dimensions shown on this line and the following line.

MARK NO.	LOCATION	SIZE	NO. REQ'D	BEND TYPE	TIE OR STIR.	FLD. WELD	SUBSTR.	EPOXY COAT.	VARIES	NO. EACH	DIMENSIONS (Out to Out) U Ft.	U In.	W Ft.	W In.	X Ft.	X In.	Y Ft.	Y In.	Z Ft.	Z In.	θ_1 Deg.	θ_2 Deg.	LENGTH Ft.	LENGTH In.	WEIGHT Lbs.
DIAPHRAGM																									
D8	INT. DIAPHRAGM HORIZ.	11	2	50							5	1.5											5	1.5	54
D10	INT. DIAPHRAGM HORIZ.	4	8	50							5	1.5											5	1.5	27
D12	INT. DIAPHRAGM HORIZ.	8	2	50							5	1.5											5	1.5	27
D13	INT. DIAPHRAGM STIRRUPS	4	2	71	T				V	1	0	5.0	6	1.0	6	1.0							12	4.1	97
											0	5.0	5	10.5	5	10.5							11	11.1	
D14	INT. DIAPHRAGM HORIZ.	7	8	50							3	6.0											3	6.0	57
D24	INT. DIAPHRAGM HORIZ.	4	4	50							7	3.5											7	2.5	19
D25	INT. DIAPHRAGM HORIZ.	6	2	50							7	3.5											7	2.5	22
D26	INT. DIAPHRAGM STIRRUPS	4	4	71	T						0	0.5	4	5.0	4	5.0							9	0.1	24
D27	INT. DIAPHRAGM STIRRUPS	4	6	71	T						0	5.0	1	5.5	1	5.5							3	1.1	12
D15	PIER DIAPHRAGM HORIZ.	5	28	50							6	4.0											6	4.0	185
D16	DIAPHRAGM HORIZ.	8	4	50							4	0.0											4	0.0	43
D17	PIER 2 DIAPHRAGM STIRRUPS	4	8	63	T						0	6.0	6	11.0	6	11.0	0	6	0	6			14	11.9	80
D23	PIER 3 DIAPHRAGM STIRRUPS	4	8	63	T						0	6.0	7	2.0	7	2.0	0	6	0	6			15	5.9	80
D29	PIER 3 DIAPHRAGM HOOPS	6	2	50							7	4.0											7	4.0	22
DECK																									
S3	DECK TRANSVERSE TOP	5	275	51							7	4.0											7	10.9	2268
S9	DECK TRANSVERSE BOT.	5	275	50							6	9.0											6	9.0	1936
S15	DECK LONGITUDINAL BOT.	5	33	50							43	1.9											43	1.9	1485
S16	DECK LONGITUDINAL TOP	4	44	50							32	4.5											32	4.5	952
S17	DECK LONGITUDINAL TOP PIER 3	11	1	50							51	5.0											51	5.0	273
S18	DECK LONGITUDINAL TOP PIER 3	6	1	50							14	4.5											14	4.5	22
S19	DECK LONGITUDINAL TOP PIER 2	6	5	50					V	1	21	1.5											21	1.5	145
											17	5.0											17	5.0	
S20	DECK LONGITUDINAL TOP PIER 3	9	3	50					V	1	17	9.5											17	9.5	177
											16	11.5											16	11.5	
S21	DECK LONGITUDINAL TOP PIER 2	9	1	50							17	6.0											17	6.0	59
S22	DECK LONGITUDINAL TOP PIER 3	9	2	50					V	1	26	3.5											26	3.5	172
											24	2.5											24	2.5	
S23	DECK LONGITUDINAL TOP PIER 2	9	2	50					V	1	26	4.5											26	4.5	175
											25	2.0											25	2.0	
S24	DECK LONGITUDINAL TOP PIER 3	9	2	50					V	1	34	11.0											34	11.0	233
											33	7.5											33	7.5	
S25	DECK LONGITUDINAL TOP PIER 2	9	2	50					V	1	32	6.5											32	6.5	219
											31	11.5											31	11.5	
S27	DECK LONGITUDINAL TOP PIER 3	9	1	50							51	0.5											51	0.5	174
DRAIN																									
DR1	DRAINS TRANS. PIER 2/3	6	16	51							7	4.0											8	0.2	193
DR2	DRAINS LONG TOP PIER 2/3	4	6	50							6	0.0											6	0.0	40
DR3	DRAINS LONG TOP PIER 2	9	6	50							11	2.0											11	2.0	190
DR4	DRAINS LONG TOP PIER 3	11	1	50							13	6.0											13	6.0	72
DR5	DRAINS LONG BOT. PIER 2/3	5	6	50							6	0.0											6	0.0	38

REINFORCEMENT BENDING DIAGRAMS



NOTES:

1. REINFORCING FOR BARRIERS AND GIRDERS ARE NOT SHOWN IN THE BAR LIST.
2. NUMBER, SIZE AND LENGTH OF BARS IN THIS TABLE ARE FOR REFERENCE ONLY, AND SHALL BE DETERMINED BY CONTRACTOR FROM THE PLANS.

SR 518 FILE NO. ____ SHEET ____

Bridge Design Engr.	B. KHALEGHI	c:\pwwork\dklypw2\mkall\d0799822\XL_B19_BarList.dgn							
Supervisor									
Designed By	T. TANG								
Checked By	M. BAUGHMAN								
Detailed By	M. AASAL								
Bridge Projects Engr.	M. ROSA								
Prelim. Plan By									
Architect/Specialist									

DATE	REVISION	BY	APP'D

REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
10	WASH.			

JOB NUMBER 22A019

BRIDGE AND STRUCTURES OFFICE

P.E. STAMP BOX DATE

Washington State Department of Transportation

COWI

SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT
BRIDGE NO. 518/12

BAR LIST

BRIDGE SHEET NO. B19

SHEET 25 OF 43 SHEETS

SIGN SPACING = X (1)		
FREEWAYS & EXPRESSWAYS	55 / 70 MPH	1500' ±
RURAL HIGHWAYS	60 / 65 MPH	800' ±
RURAL ROADS	45 / 55 MPH	500' ±
RURAL ROADS & URBAN ARTERIALS	35 / 40 MPH	350' ±
RURAL ROADS & URBAN ARTERIALS RESIDENTIAL & BUSINESS DISTRICTS	25 / 30 MPH	200' ± (2)
URBAN STREETS	25 MPH OR LESS	100' ± (2)

(1) ALL SPACING MAY BE ADJUSTED TO ACCOMMODATE INTERCHANGE RAMPS, AT-GRADE INTERSECTIONS AND DRIVEWAYS.
(2) THIS SPACING MAY BE REDUCED IN URBAN AREAS TO FIT ROADWAY CONDITIONS.

LEGEND

- WORK ZONE
- TRANSPORTABLE ATTENUATOR
- PROTECTIVE VEHICLE
- CONSTRUCTION SIGNS CLASS A
- CONSTRUCTION SIGNS CLASS B
- TRAFFIC SAFETY DRUMS WITH TYPE C LIGHTS
- TALL CHANNELIZATION DEVICE WITH TYPE C LIGHTS
- TUBULAR MARKER WITH TYPE C LIGHTS
- TRAFFIC SAFETY CONE
- TEMPORARY SIGN LOCATION (5' MOUNTING HEIGHT)
- DIRECTION OF TRAVEL
- TYPE 3 BARRICADE WITH ROAD CLOSED SIGN
- SEQUENTIAL ARROW SIGN (ONE DIRECTION)
- CONTRACTOR PROVIDED UNIFORMED POLICE OFFICER (UPO)
- PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)
- WORK AREA
- DETOUR ROUTE

BUFFER DATA										
LONGITUDINAL BUFFER SPACE = B										
SPEED (MPH)	25	30	35	40	45	50	55	60	65	70
LENGTH (feet)	155	200	250	305	360	425	495	570	645	730

TRANSPORTABLE ATTENUATOR ROLL AHEAD DISTANCE = R					
HOST VEHICLE WEIGHT 9,900 TO 22,000 lbs.			HOST VEHICLE WEIGHT > 22,000 lbs.		
< 45 MPH	45-55 MPH	> 55 MPH	< 45 MPH	45-55 MPH	> 55 MPH
100'	123'	172'	74'	100'	150'

PROTECTIVE VEHICLE (WORK VEHICLE) = R
NO SPECIFIED DISTANCE REQUIRED

MINIMUM LANE CLOSURE TAPER LENGTH = L (feet)										
LANE WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
10	105	150	205	270	450	500	550	-	-	-
11	115	165	225	295	495	550	605	660	-	-
12	140	180	270	330	540	600	680	720	800	840

MINIMUM SHOULDER TAPER LENGTH = L/3 (feet)										
SHOULDER WIDTH (feet)	Posted Speed (mph)									
	25	30	35	40	45	50	55	60	65	70
8'	40	40	60	90	120	130	150	160	170	190
10'	40	60	90	90	150	200	200	200	240	240
USE A MINIMUM 3 DEVICES TAPER FOR SHOULDER LESS THEN 8'.										

MAXIMUM CHANNELIZATION DEVICE SPACING (feet)		
MPH	TAPER	TANGENT
50/70	40	80
35/45	30	60
25/30	20	40

OR AS NOTED ON TRAFFIC CONTROL PLAN

TRAFFIC CONTROL PLAN INDEX

GENERAL NOTES:

1. SEE "CONSTRUCTION UNDER TRAFFIC" IN THE SPECIAL PROVISIONS FOR WORK HOUR RESTRICTIONS.
2. ALL SIGNS ARE BLACK ON ORANGE, UNLESS OTHERWISE NOTED.
3. MOTORCYCLES USE EXTREME CAUTION SIGNS (W21-1701) SHALL BE INSTALLED WHEN THE FOLLOWING CONDITIONS EXIST: GROOVED PAVEMENT; ABRUPT LANE EDGE; STEEL PLATES OR LOOSE GRAVEL OR SOILS. SPECIFIC SIGN FOR EACH OF THE CONDITIONS NOTED SHALL BE INSTALLED ALONG WITH THE "MOTORCYCLE USE EXTREME CAUTION" SIGNS. SEE STANDARD PLAN K-60-40-00.
4. UNLESS OTHERWISE INDICATED,THE CONTRACTOR SHALL MAINTAIN ACCESS TO CITY OF SEATAC AND BURIEN SIDE STREETS AT ALL TIMES, EXCEPT DURING TEN MINUTE TRAFFIC HOLDS.
5. TALL CHANNELIZATION DEVICES SHALL BE 42" TALL CONES AND MEET THE REQUIREMENTS OF SECTION 9-35.13 IN THE STANDARD SPECIFICATIONS.
6. PROTECTIVE VEHICLES RECOMMENDED PRIOR TO WORK AREAS WHENEVER POSSIBLE. ACCEPTABLE TO USE 48"x48" SIGN WHERE 36"x36" ARE DENOTED.
7. TUBULAR MARKERS SHALL MEET THE REQUIREMENTS OF SECTION 9-35.10 OF THE STANDARD SPECIFICATIONS.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_1.dgn				
TIME	1:38:08 PM			REGION NO. 10	STATE WASH
DATE	10/18/2022				FED.AID PROJ.NO.
PLOTTED BY	Daviesj			JOB NUMBER 22A019	
DESIGNED BY	M.D. LONG/Y. DAMTE			CONTRACT NO.	LOCATION NO.
ENTERED BY	Y. DAMTE				
CHECKED BY	T. BERTOLINI				
PROJ. ENGR.	A. EMERSON				
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY	

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

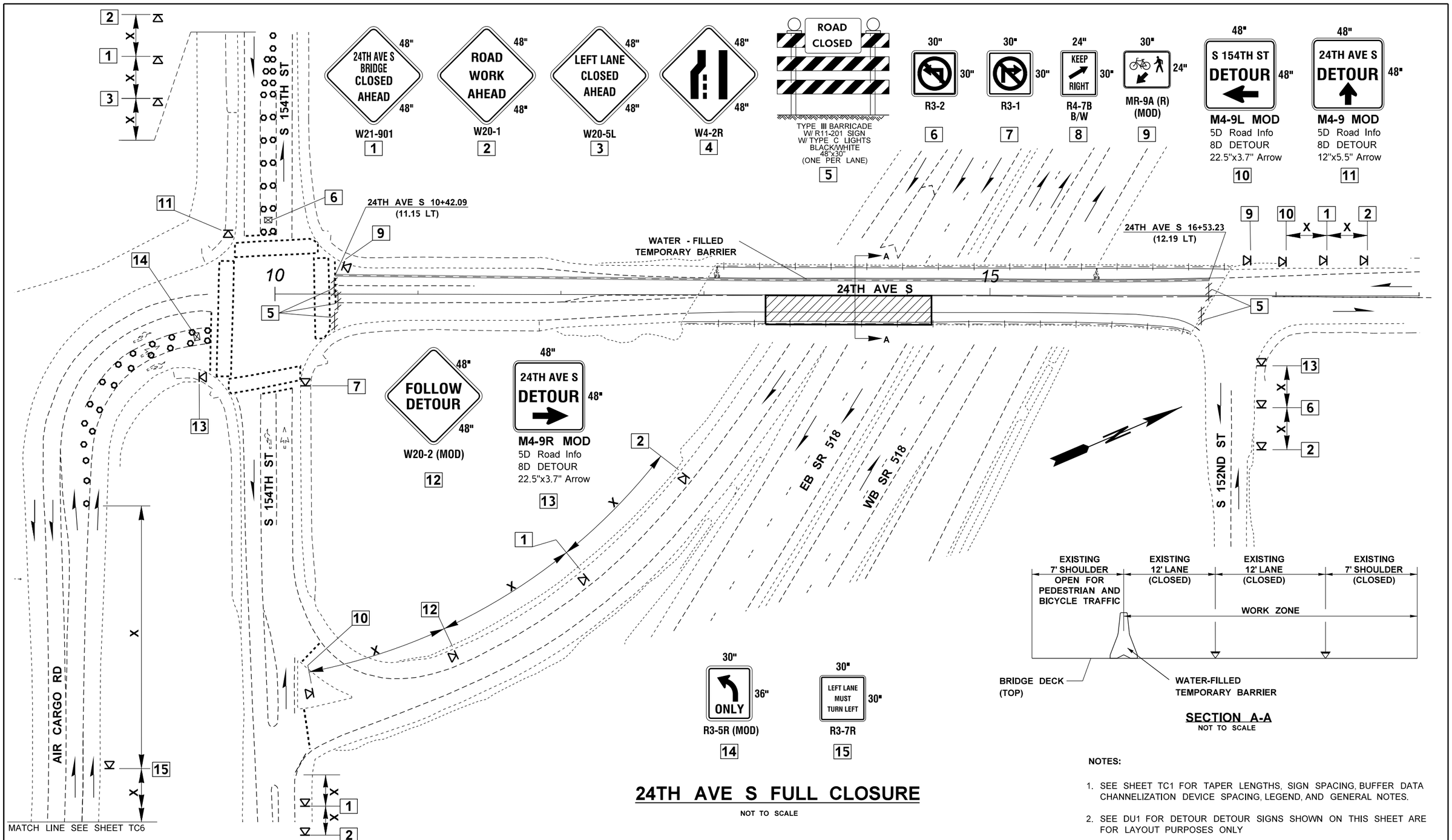
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 16

PLAN REF NO TC1

SHEET 26 OF 43 SHEETS



SECTION A-A
NOT TO SCALE

24TH AVE S FULL CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.
2. SEE DU1 FOR DETOUR DETOUR SIGNS SHOWN ON THIS SHEET ARE FOR LAYOUT PURPOSES ONLY

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_1.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	3:27:10 PM				10	WASH	
DATE	10/18/2022				JOB NUMBER		
PLOTTED BY	Daviesj				22A019		
DESIGNED BY	M.D. LONG/Y. DAMTE				CONTRACT NO.		LOCATION NO.
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI						
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

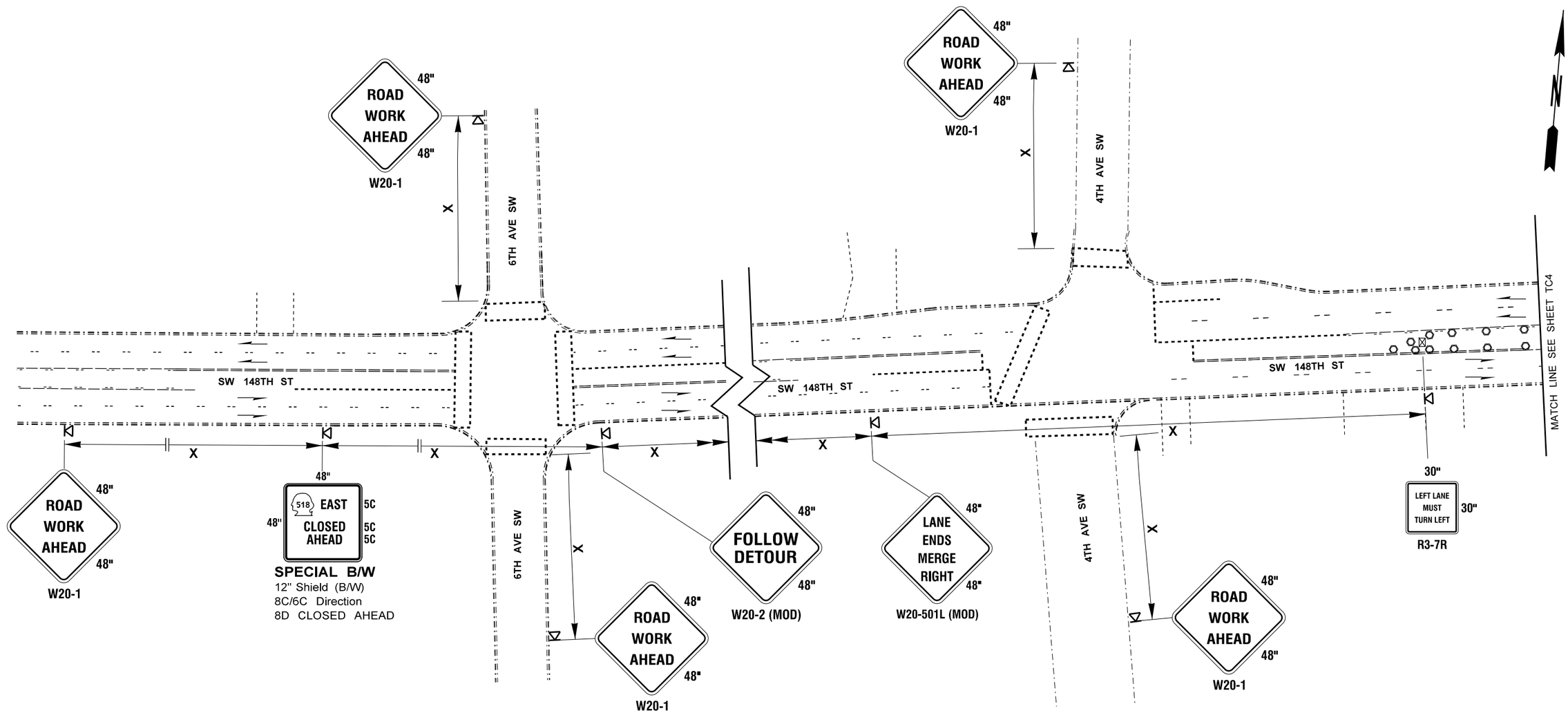
SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 15

PLAN REF NO
TC2

SHEET 27 OF 43 SHEETS



EASTBOUND SR 518 FULL CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.
2. SEE DU2 FOR DETOUR. DETOUR SIGNS SHOWN ON THIS SHEET ARE FOR LAYOUT PURPOSES ONLY.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	1:43:27 PM						
DATE	10/18/2022				JOB NUMBER 22A019		
PLOTTED BY	Daviesj						
DESIGNED BY	M.D. LONG/Y. DAMTE				CONTRACT NO.		LOCATION NO.
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI						
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

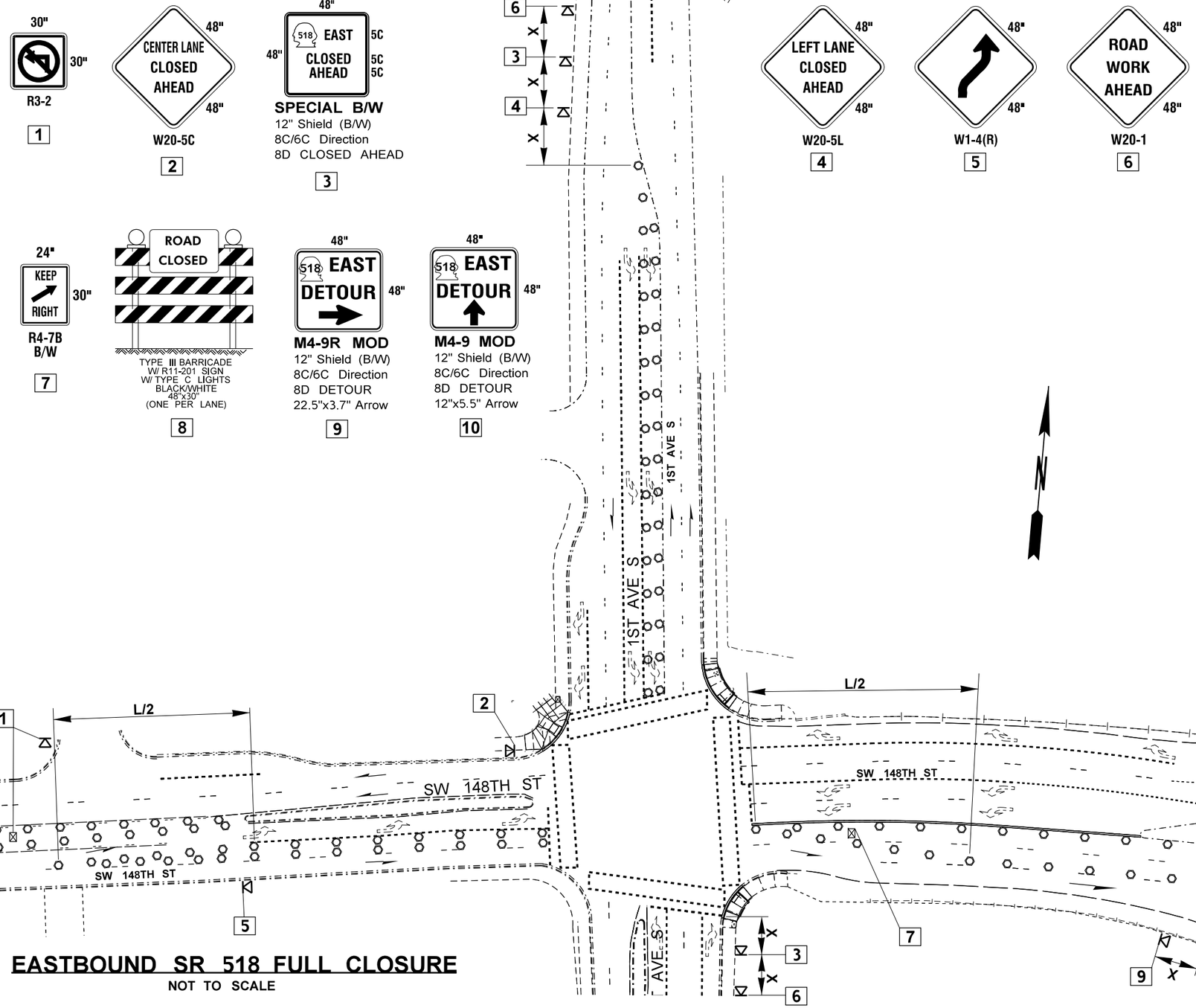
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 21

PLAN REF NO TC3

SHEET 28 OF 43 SHEETS



EASTBOUND SR 518 FULL CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.
2. SEE DU2 FOR DETOUR. DETOUR SIGNS SHOWN ON THIS SHEET ARE FOR LAYOUT PURPOSES ONLY.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	1:43:51 PM						
DATE	10/18/2022						
PLOTTED BY	Daviesj				JOB NUMBER 22A019		
DESIGNED BY	M.D. LONG/Y. DAMTE						
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

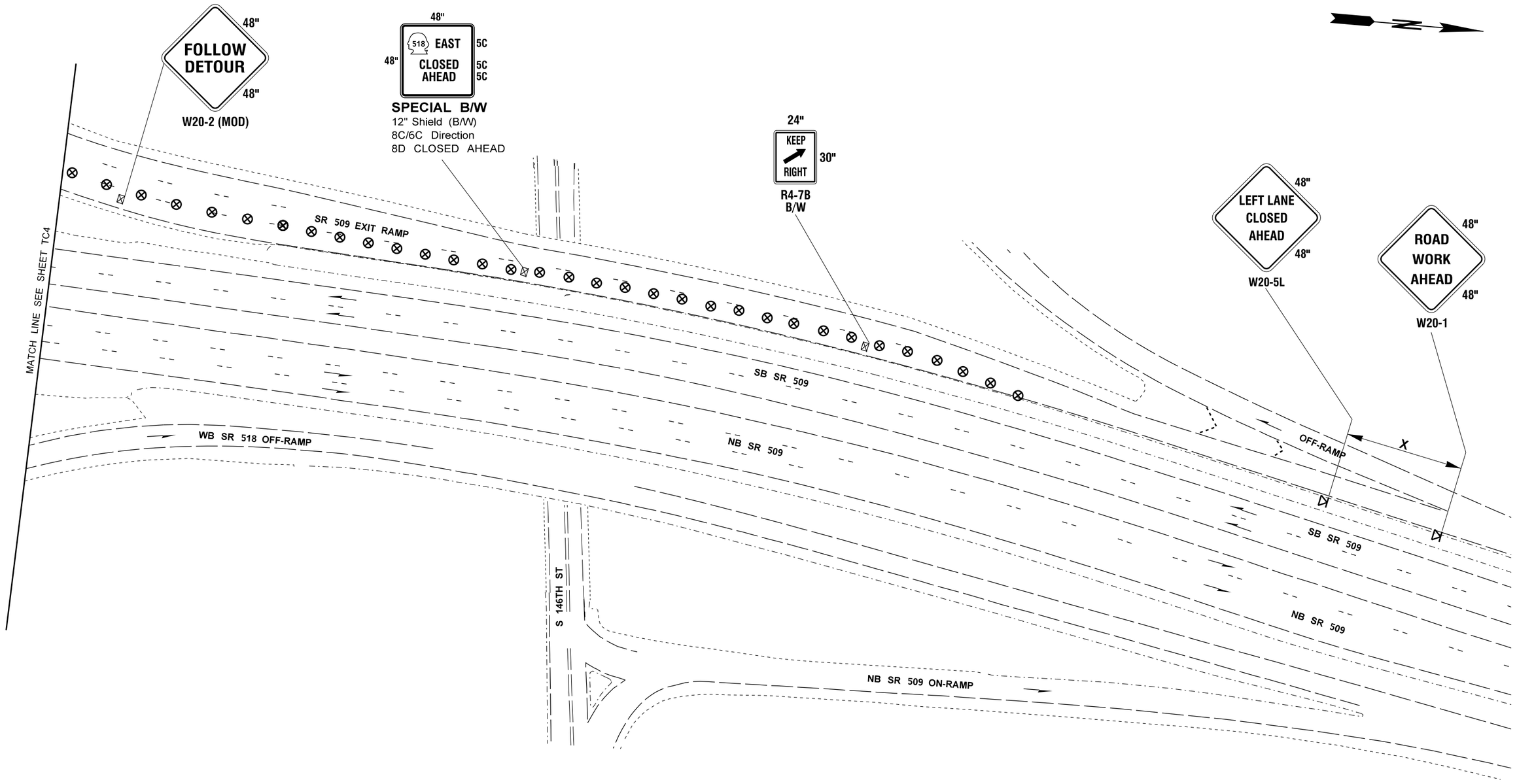
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 22

PLAN REF NO TC4

SHEET 29 OF 43 SHEETS



EASTBOUND SR 518 FULL CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.
2. SEE DU2 FOR DETOUR. DETOUR SIGNS SHOWN ON THIS SHEET ARE FOR LAYOUT PURPOSES ONLY.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	1:44:17 PM						
DATE	10/18/2022						
PLOTTED BY	Daviesj						
DESIGNED BY	M.D. LONG/Y. DAMTE				JOB NUMBER 22A019		
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

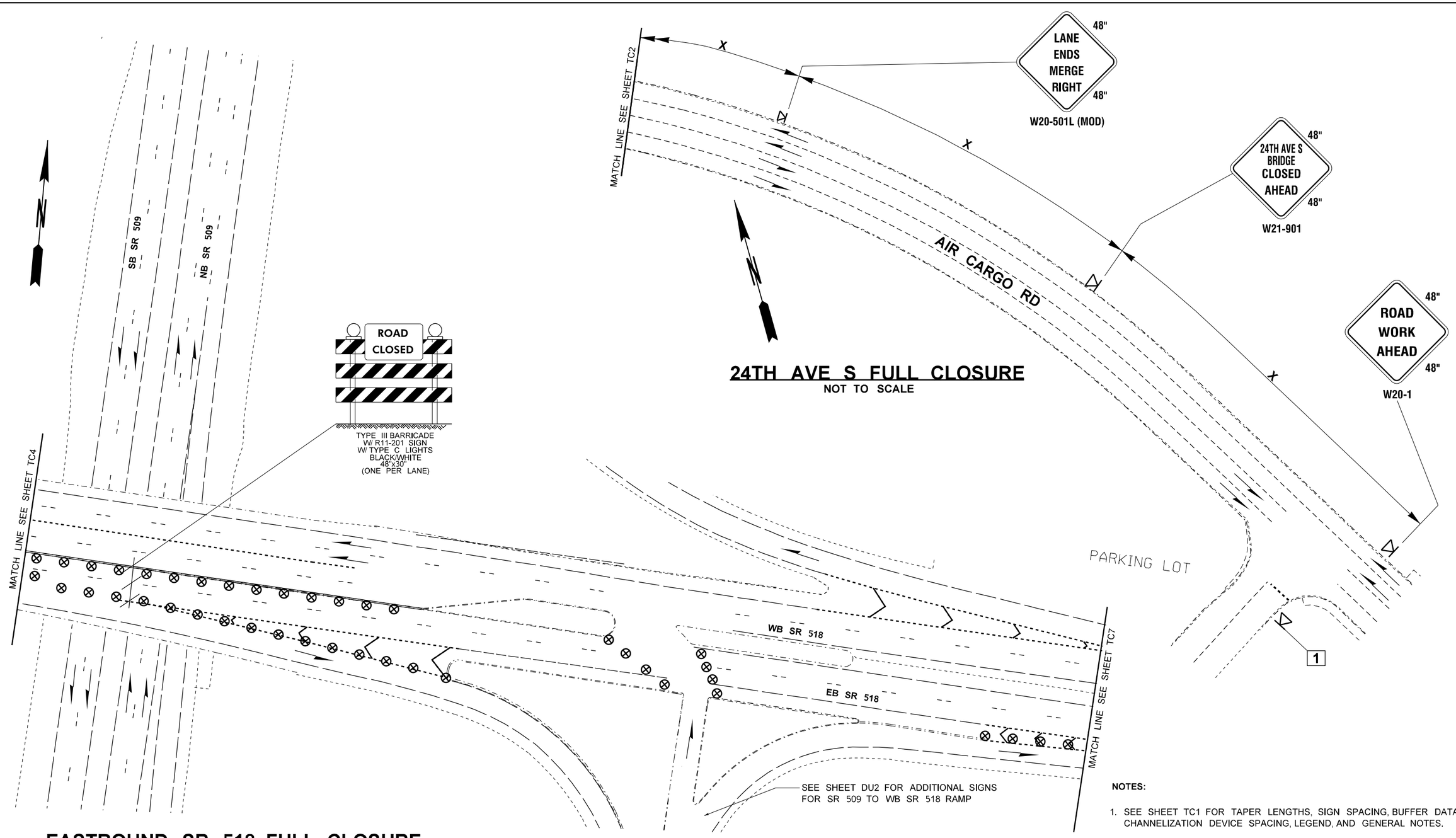
SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 23

PLAN REF NO TC5

SHEET 30 OF 43 SHEETS



24TH AVE S FULL CLOSURE

NOT TO SCALE

EASTBOUND SR 518 FULL CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.
2. SEE DU2 FOR DETOUR. DETOUR SIGNS SHOWN ON THIS SHEET ARE FOR LAYOUT PURPOSES ONLY.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	11:48:10 AM				10	WASH	
DATE	10/19/2022				JOB NUMBER		
PLOTTED BY	WilsonE				22A019		
DESIGNED BY	M.D. LONG/Y. DAMTE				CONTRACT NO.		LOCATION NO.
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI						
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

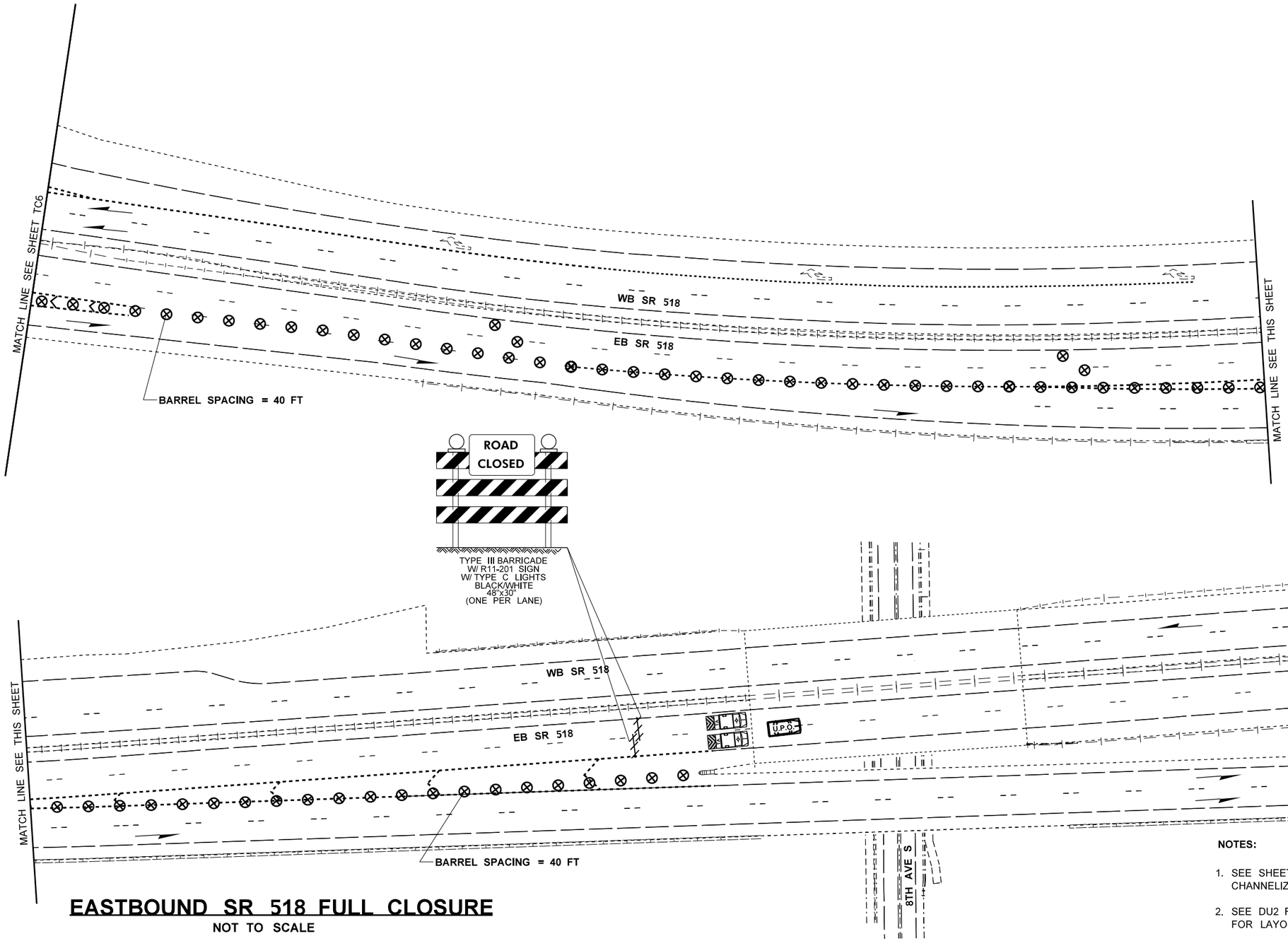
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 24

PLAN REF NO
TC6

SHEET 31 OF 43 SHEETS



EASTBOUND SR 518 FULL CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.
2. SEE DU2 FOR DETOUR. DETOUR SIGNS SHOWN ON THIS SHEET ARE FOR LAYOUT PURPOSES ONLY.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	1:45:04 PM						
DATE	10/18/2022						
PLOTTED BY	Daviesj				JOB NUMBER 22A019		
DESIGNED BY	M.D. LONG/Y. DAMTE						
ENTERED BY	Y. DAMTE				CONTRACT NO.		LOCATION NO.
CHECKED BY	T. BERTOLINI						
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

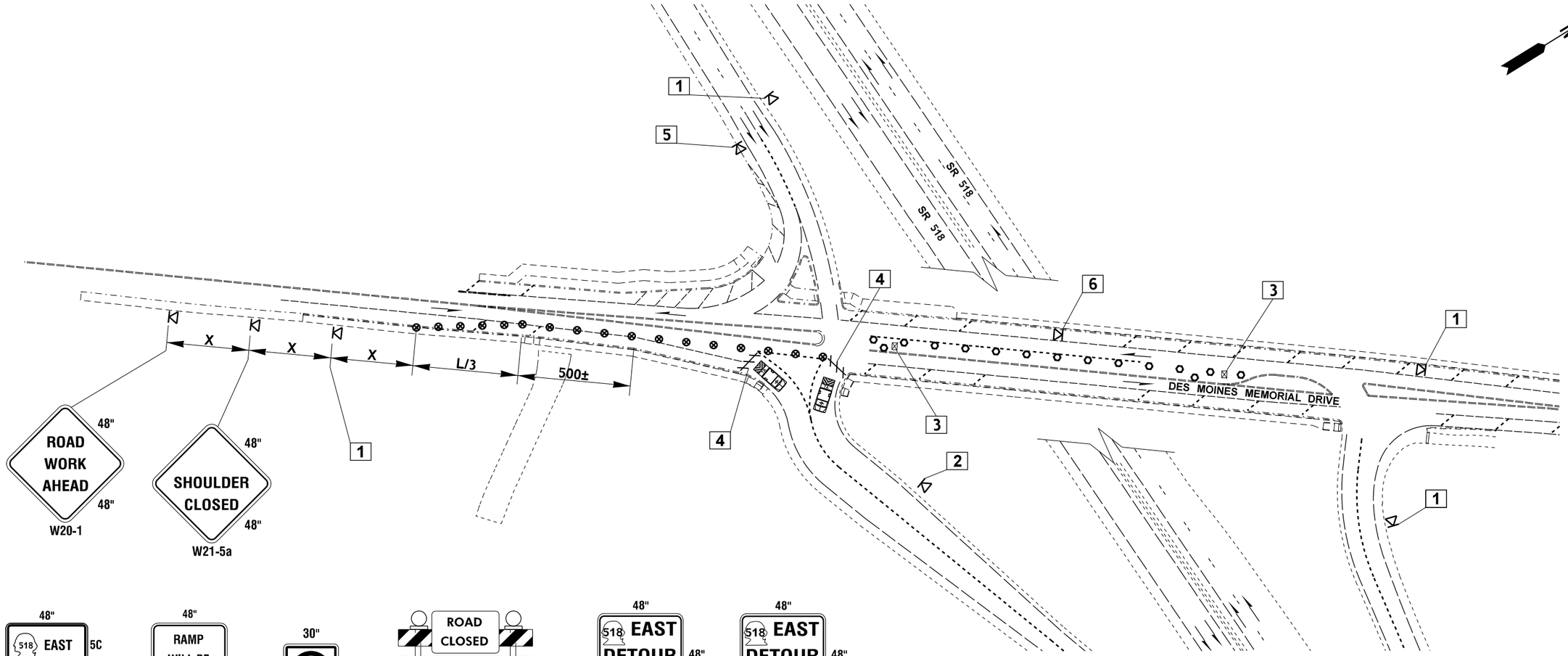
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 25

PLAN REF NO **TC7**

SHEET 32 OF 43 SHEETS



48"
518 EAST
CLOSED AHEAD
48"
5C
5C
5C

SPECIAL B/W
12" Shield (B/W)
8C/6C Direction
8D CLOSED AHEAD

1

48"
RAMP
WILL BE
CLOSED
MON. DATE - MON. DATE
XPM X AM
60"

R11-1501 B/W
48"X 60"
INSTALL 5 DAYS MIN. PRIOR TO CLOSING

2

30"
30"

R3-2

3

ROAD
CLOSED

TYPE III BARRICADE
W/ R11-201 SIGN
W/ TYPE C LIGHTS
BLACK/WHITE
48"x30"
(ONE PER LANE)

4

48"
518 EAST
DETOUR
48"

M4-9R MOD
12" Shield (B/W)
8C/6C Direction
8D DETOUR
22.5"x3.7" Arrow

5

48"
518 EAST
DETOUR
48"

M4-9 MOD
12" Shield (B/W)
8C/6C Direction
8D DETOUR
12"x5.5" Arrow

6

EASTBOUND SR 518 FULL CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.
2. SEE DU2 FOR DETOUR. DETOUR SIGNS SHOWN ON THIS SHEET ARE FOR LAYOUT PURPOSES ONLY.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	11:39:26 AM				10	WASH	
DATE	10/19/2022				JOB NUMBER		
PLOTTED BY	WilsonE				22A019		
DESIGNED BY	M.D. LONG/Y. DAMTE				CONTRACT NO.		LOCATION NO.
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI						
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

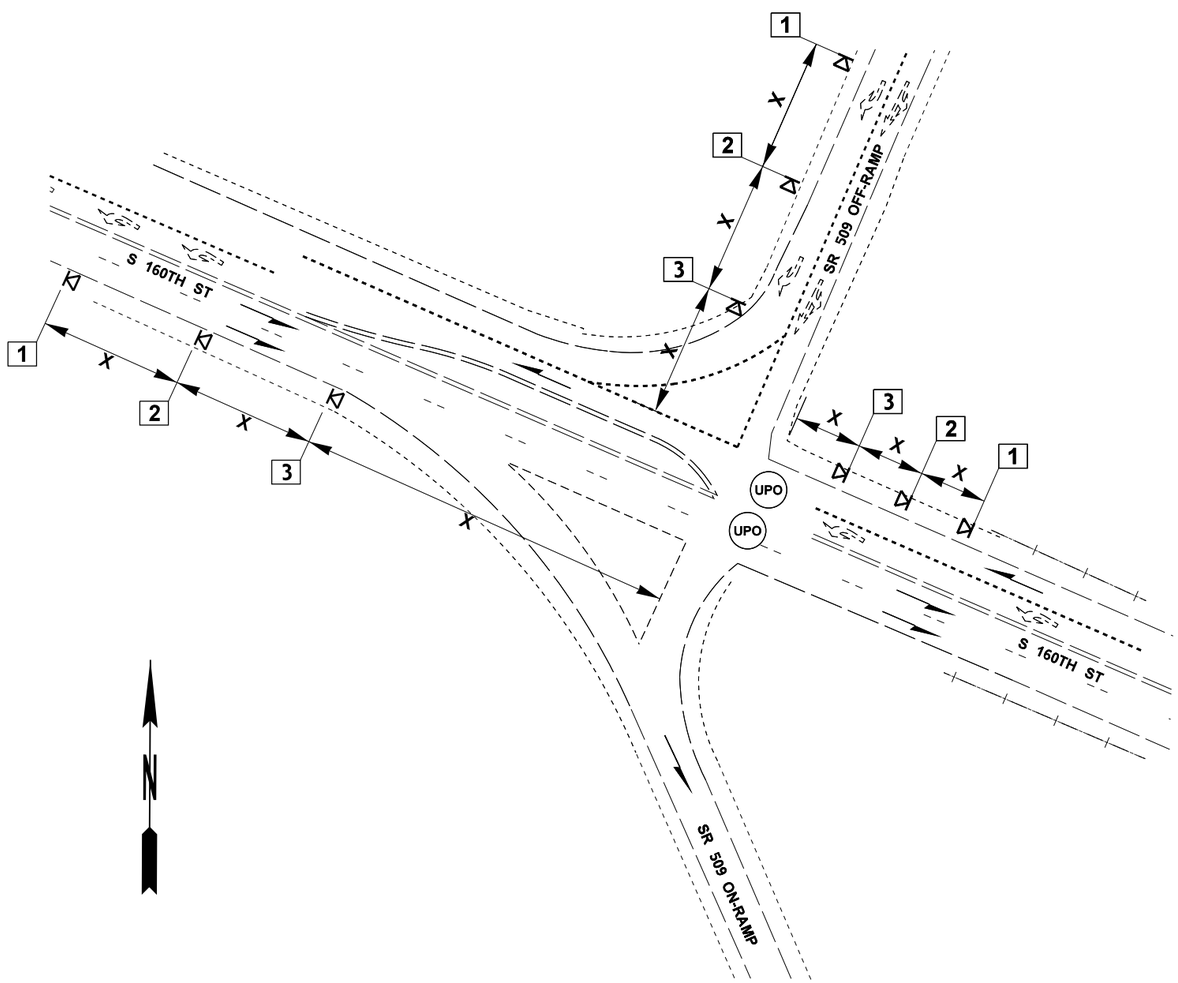
SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

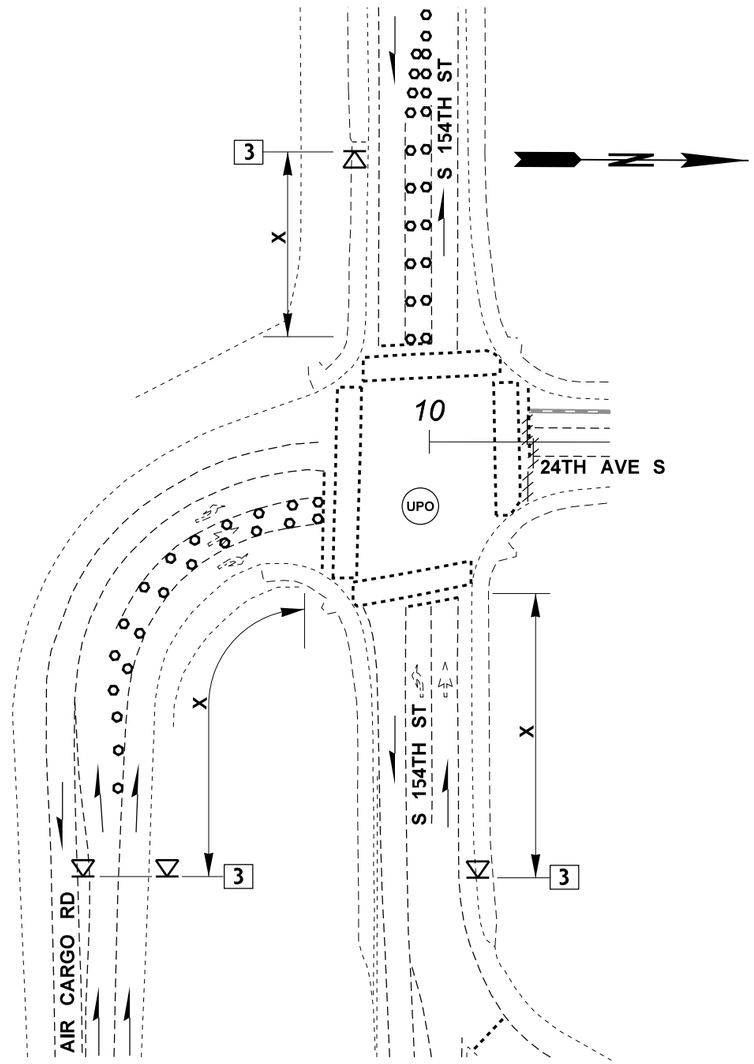
Plot 19

PLAN REF NO
TC8

SHEET
33
OF
43
SHEETS



SR 509 RAMPS AND S 160TH ST INTERSECTION - UPO TRAFFIC CONTROL



24TH AVE S WEEKEND CLOSURE - UPO TRAFFIC CONTROL

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.
2. SEE DU2 AND DU1 FOR DETOUR. DETOUR SIGNS SHOWN ON THIS SHEET ARE FOR LAYOUT PURPOSES ONLY.
3. UPO'S TO BE USED ONLY DURING AM/PM PEAK DRIVING PERIODS NOT TO EXCEED 8 HOURS PER DAY OR 4 HOURS PER SHIFT.

EASTBOUND SR 518 FULL CLOSURE

NOT TO SCALE

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	3:18:13 PM						
DATE	10/18/2022						
PLOTTED BY	Daviesj						
DESIGNED BY	M.D. LONG/Y. DAMTE				JOB NUMBER 22A019		
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

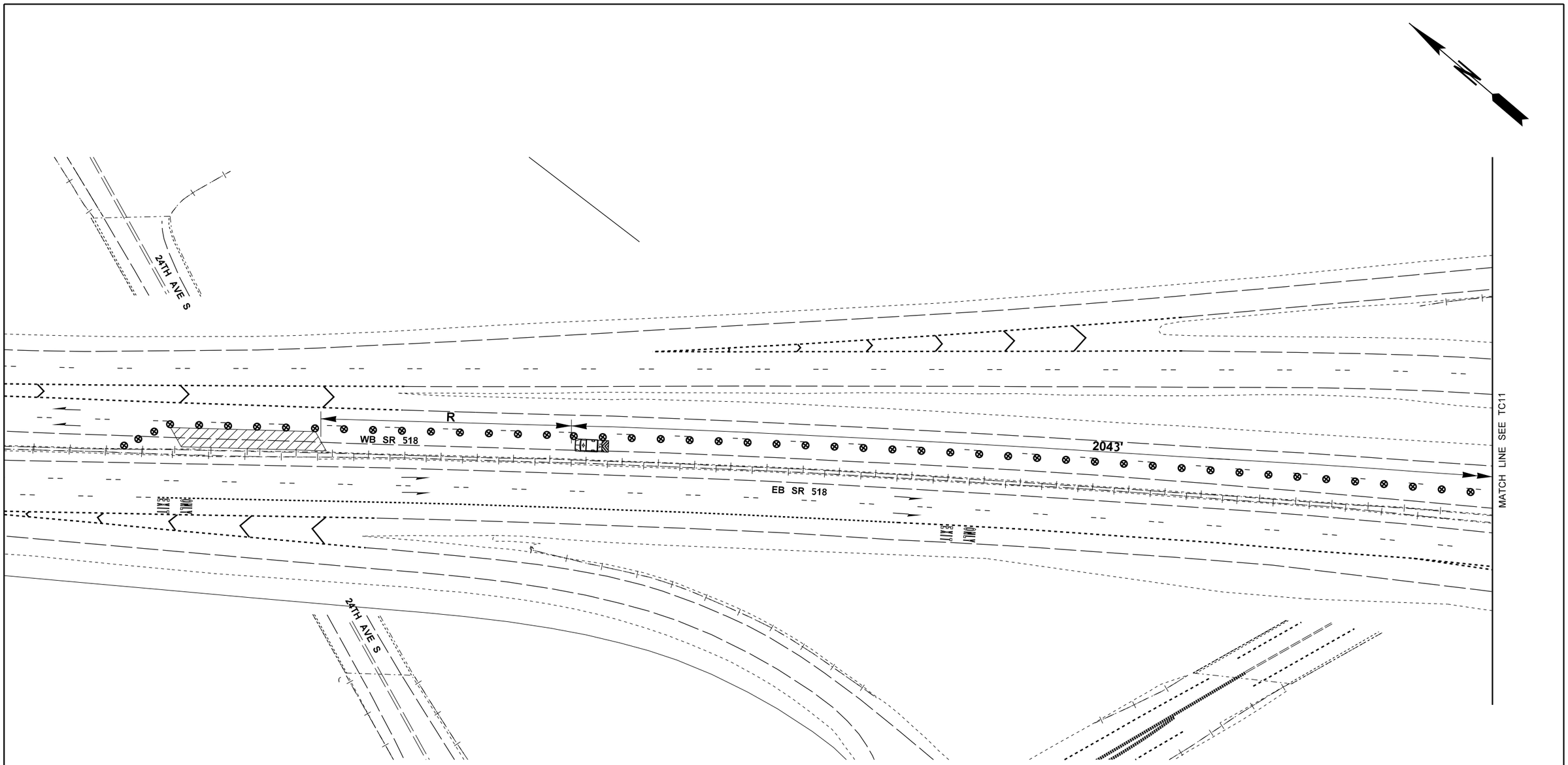
SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 26

PLAN REF NO
TC9

SHEET 34 OF 43 SHEETS



WESTBOUND SR 518 LEFT LANE CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	1:46:29 PM						
DATE	10/18/2022						
PLOTTED BY	Daviesj						
DESIGNED BY	M.D. LONG/Y. DAMTE				JOB NUMBER 22A019		
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

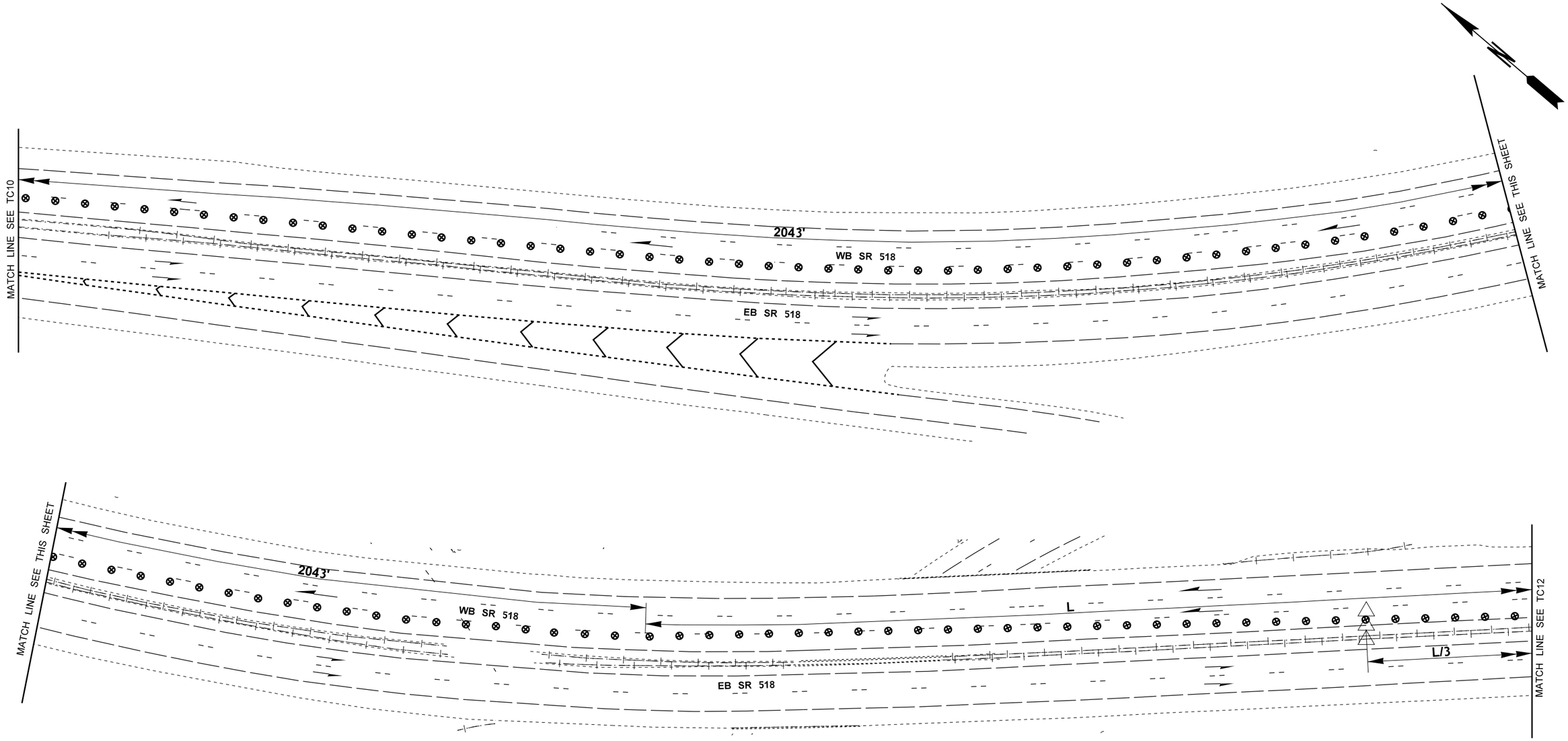
SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 27

PLAN REF NO **TC10**

SHEET 35 OF 43 SHEETS



WESTBOUND SR 518 LEFT LANE CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	1:46:51 PM						
DATE	10/18/2022				JOB NUMBER 22A019		
PLOTTED BY	Daviesj						
DESIGNED BY	M.D. LONG/Y. DAMTE				CONTRACT NO.		LOCATION NO.
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI						
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

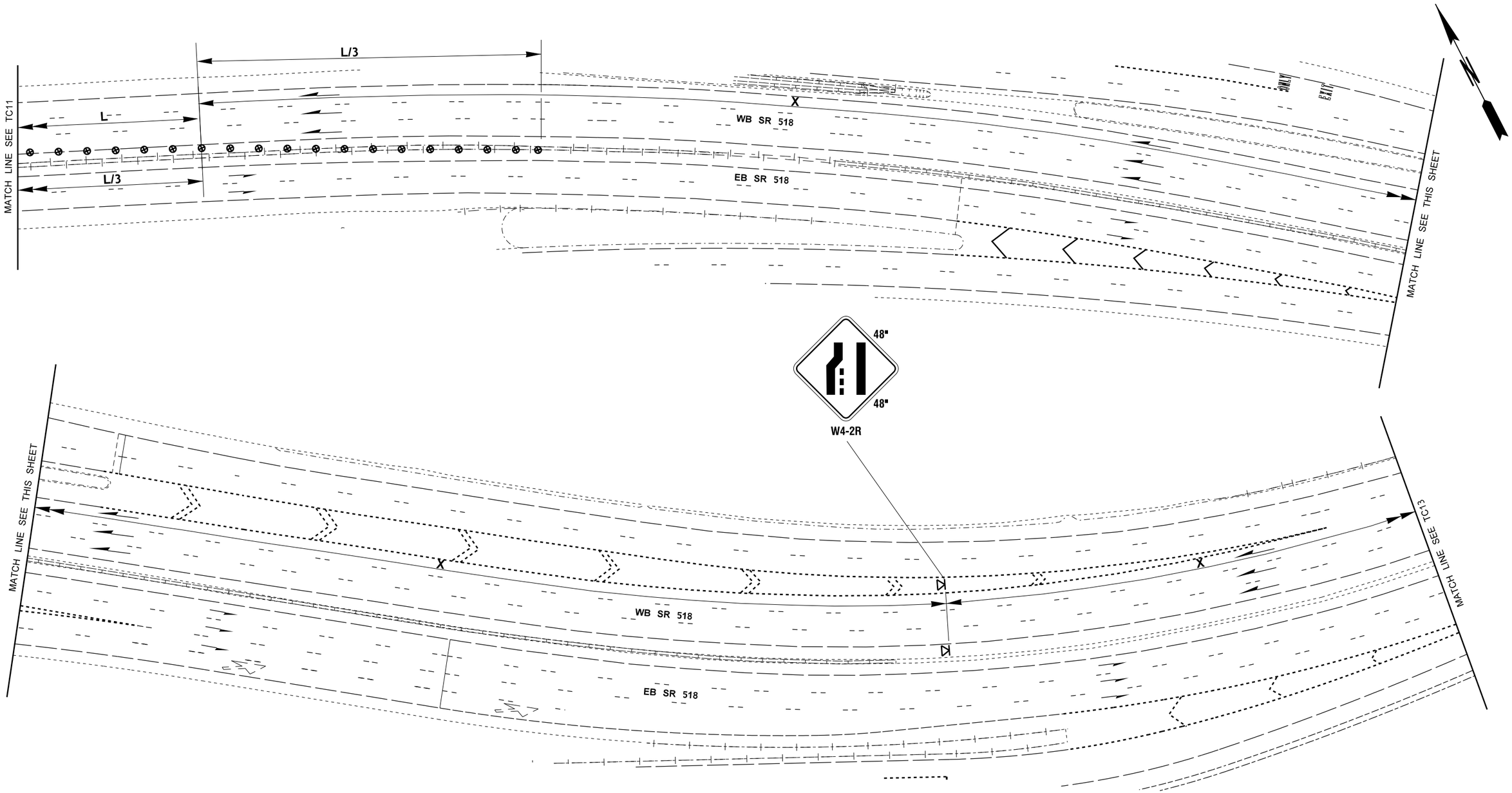
SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 28

PLAN REF NO **TC11**

SHEET 36 OF 43 SHEETS



WESTBOUND SR 518 LEFT LANE CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.	Plot 29
TIME	1:47:09 PM							PLAN REF NO TC12
DATE	10/18/2022				JOB NUMBER 22A019			SHEET 37 OF 43 SHEETS
PLOTTED BY	Daviesj				CONTRACT NO.		LOCATION NO.	
DESIGNED BY	M.D. LONG/Y. DAMTE							
ENTERED BY	Y. DAMTE							
CHECKED BY	T. BERTOLINI							
PROJ. ENGR.	A. EMERSON							
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY				

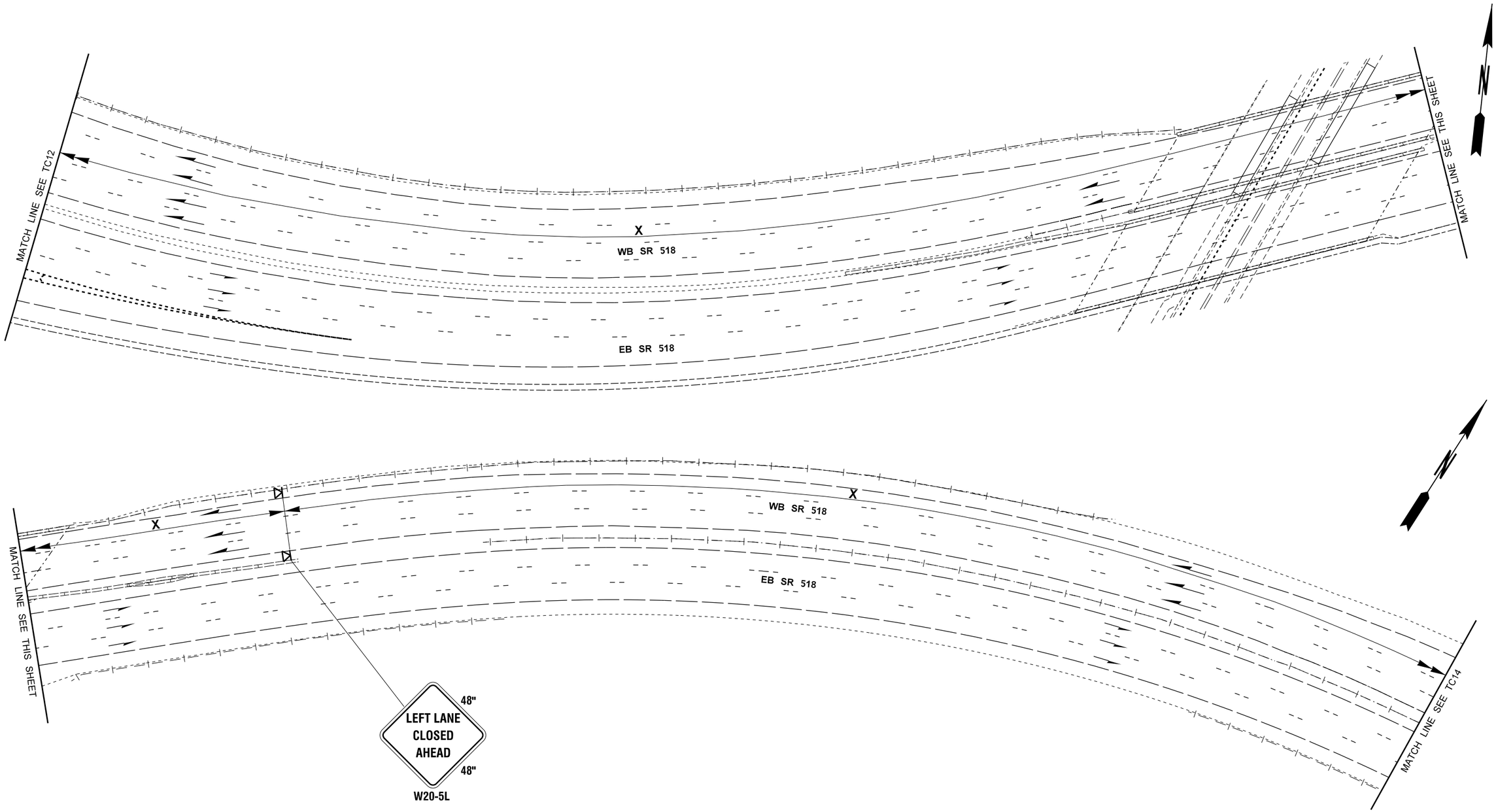
P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN



WESTBOUND SR 518 LEFT LANE CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	1:47:31 PM				10	WASH	
DATE	10/18/2022				JOB NUMBER		
PLOTTED BY	Daviesj				22A019		
DESIGNED BY	M.D. LONG/Y. DAMTE				CONTRACT NO.		LOCATION NO.
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI						
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State
Department of Transportation

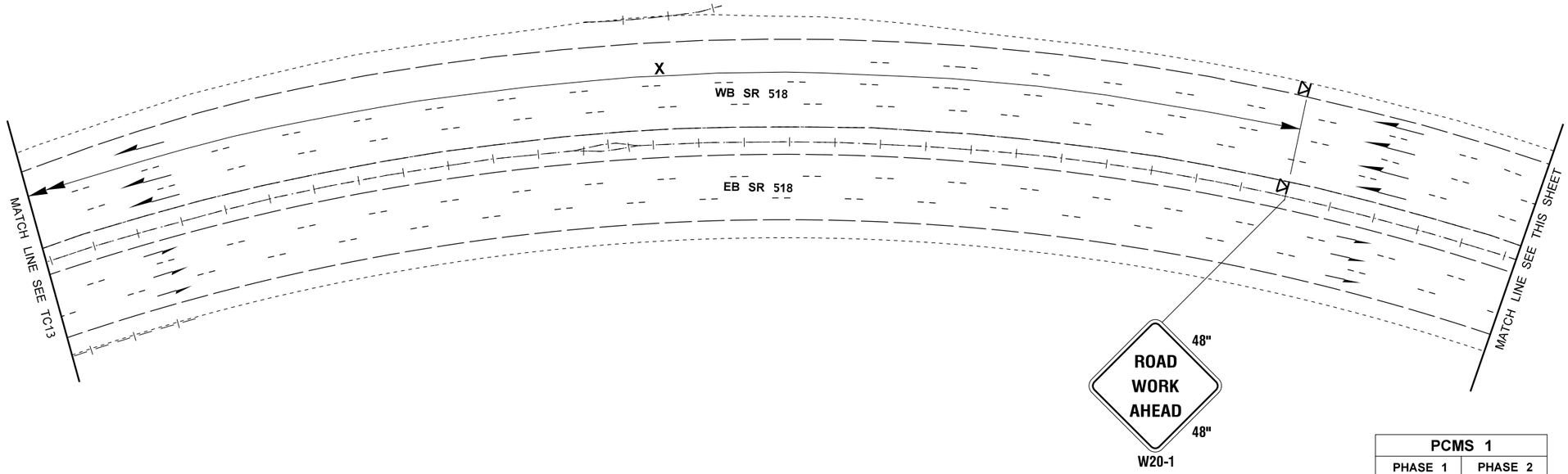
SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 30

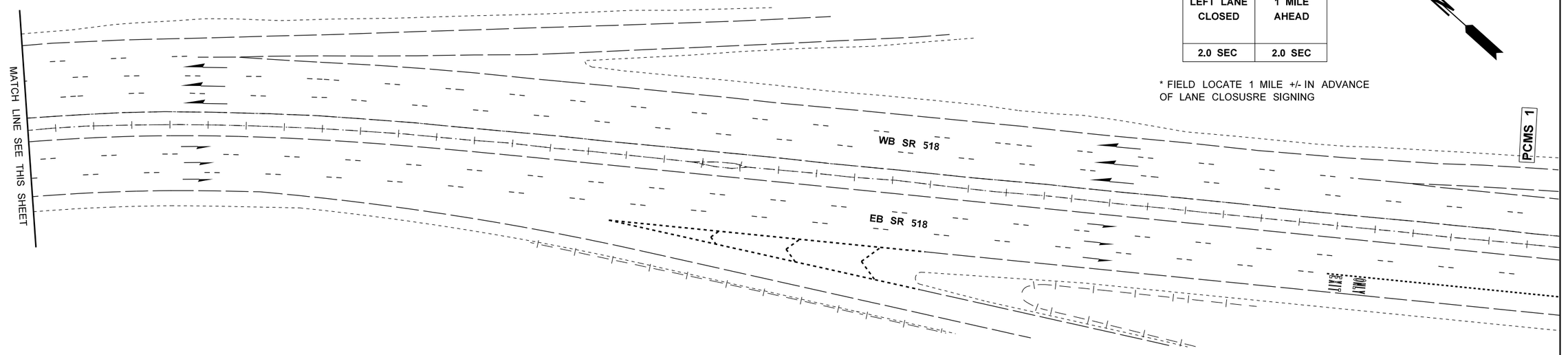
PLAN REF NO
TC13

SHEET
38
OF
43
SHEETS



PCMS 1	
PHASE 1	PHASE 2
LEFT LANE CLOSED	1 MILE AHEAD
2.0 SEC	2.0 SEC

* FIELD LOCATE 1 MILE +/- IN ADVANCE OF LANE CLOSUSRE SIGNING



WESTBOUND SR 518 LEFT LANE CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
TIME	1:47:54 PM						
DATE	10/18/2022						
PLOTTED BY	Daviesj						
DESIGNED BY	M.D. LONG/Y. DAMTE				JOB NUMBER 22A019		
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI				CONTRACT NO.		LOCATION NO.
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 31

PLAN REF NO **TC14**

SHEET 39 OF 43 SHEETS

PCMS 1	
PHASE 1	PHASE 2
LEFT LANE CLOSED	1 MILE AHEAD
2.0 SEC	2.0 SEC

* FIELD LOCATE 1 MILE +/- IN ADVANCE OF LANE CLOSUSRE SIGNING

EASTBOUND SR 518 LEFT LANE CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	11:39:44 AM				10	WASH	
DATE	10/19/2022				JOB NUMBER		
PLOTTED BY	WilsonE				22A019		
DESIGNED BY	M.D. LONG/Y. DAMTE				CONTRACT NO.		LOCATION NO.
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI						
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

DATE
P.E. STAMP BOX

DATE
P.E. STAMP BOX

Washington State Department of Transportation

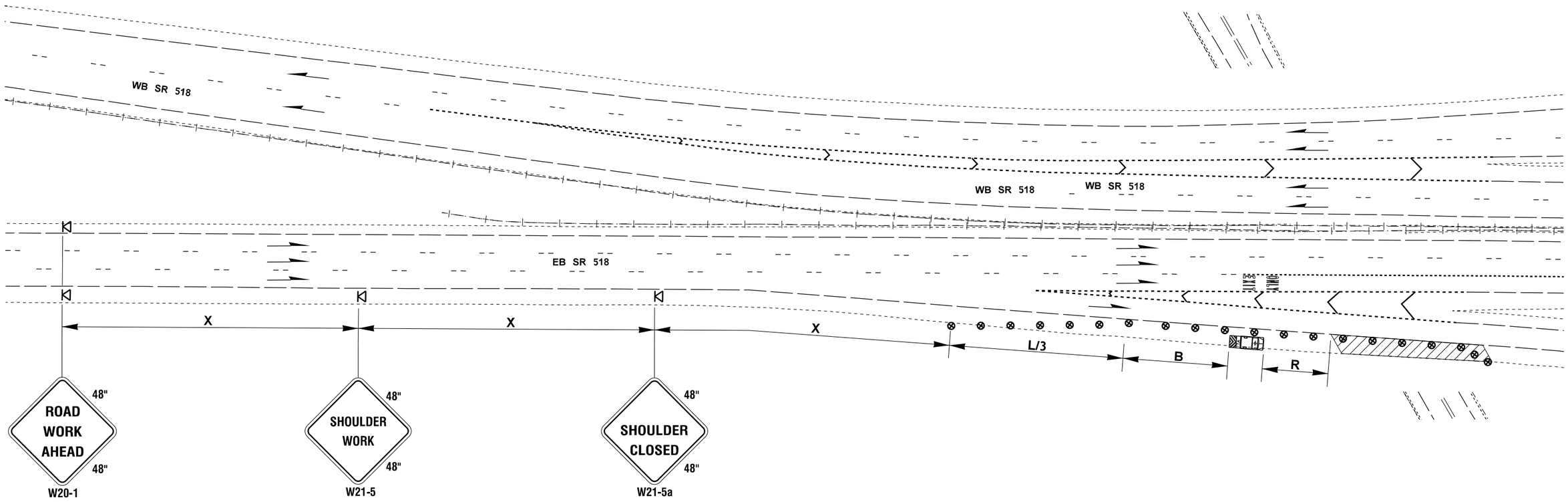
SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 32

PLAN REF NO
TC15

SHEET 40 OF 43 SHEETS



EASTBOUND SR 518 RAMP SHOULDER CLOSURE

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_TC_2.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	11:39:59 AM				10	WASH	
DATE	10/19/2022				JOB NUMBER		
PLOTTED BY	WilsonE				22A019		
DESIGNED BY	M.D. LONG/Y. DAMTE				CONTRACT NO.		LOCATION NO.
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI						
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT

TRAFFIC CONTROL PLAN

Plot 33

PLAN REF NO **TC16**

SHEET **41** OF **43** SHEETS

PCMS1	
PHASE 1	PHASE 2
24TH AVE S BRIDGE CLOSED	FOLLOW DETOUR
2.0 SEC	2.0 SEC

* FIELD LOCATE 1 MILE +/- IN ADVANCE OF LANE CLOSUSRE SIGNING

48" 24TH AVE S DETOUR 48"
M4-9L MOD
5D Road Info
8D DETOUR
22.5"x3.7" Arrow
1

48" 24TH AVE S DETOUR 48"
M4-9 MOD
5D Road Info
8D DETOUR
12"x5.5" Arrow
2

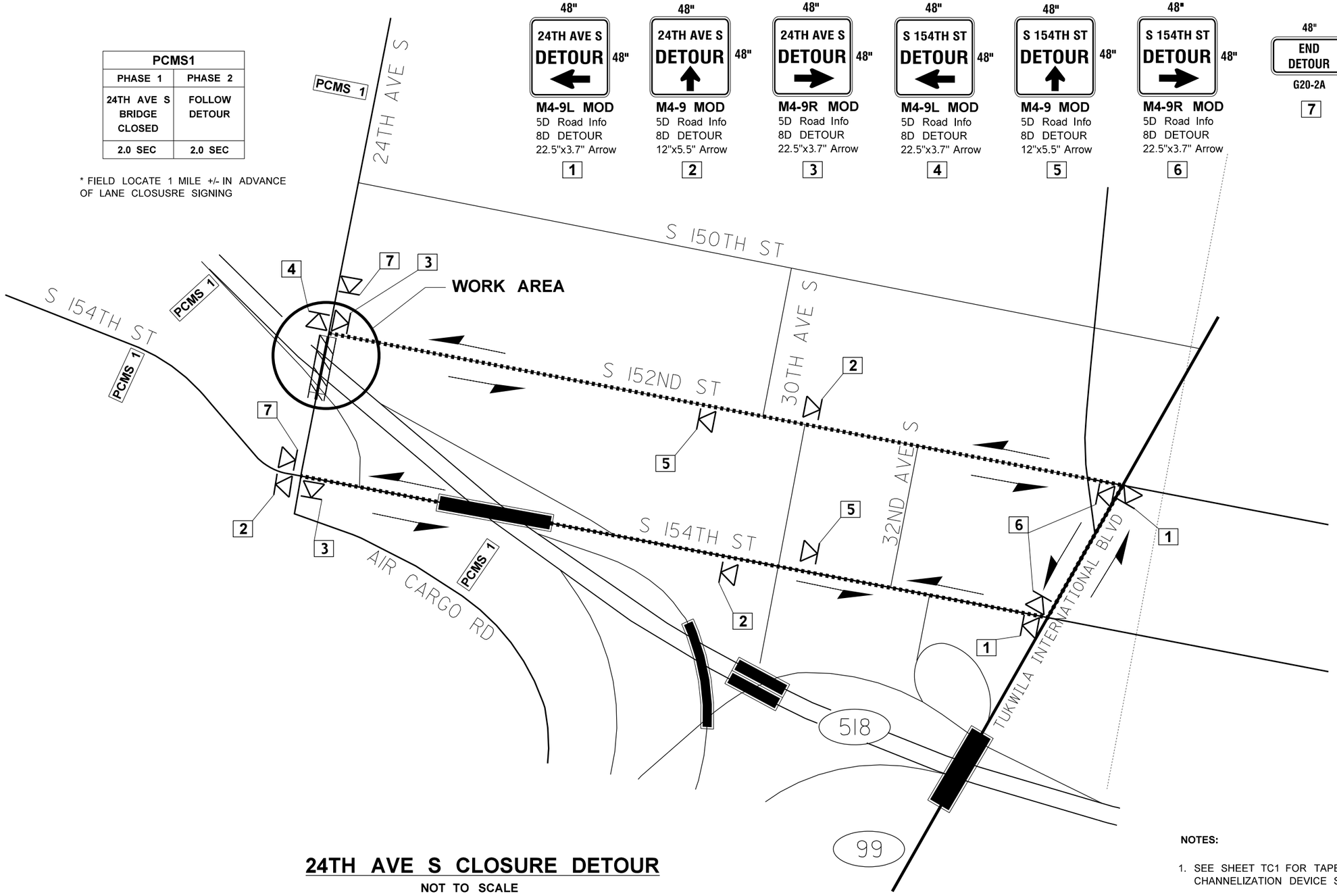
48" 24TH AVE S DETOUR 48"
M4-9R MOD
5D Road Info
8D DETOUR
22.5"x3.7" Arrow
3

48" S 154TH ST DETOUR 48"
M4-9L MOD
5D Road Info
8D DETOUR
22.5"x3.7" Arrow
4

48" S 154TH ST DETOUR 48"
M4-9 MOD
5D Road Info
8D DETOUR
12"x5.5" Arrow
5

48" S 154TH ST DETOUR 48"
M4-9R MOD
5D Road Info
8D DETOUR
22.5"x3.7" Arrow
6

48" END DETOUR 24"
G20-2A
7



24TH AVE S CLOSURE DETOUR

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_DU.dgn						
TIME	1:52:19 PM				REGION NO. 10	STATE WASH	FED.AID PROJ.NO.
DATE	10/18/2022						
PLOTTED BY	Daviesj				JOB NUMBER 22A019		
DESIGNED BY	M.D. LONG/Y. DAMTE				CONTRACT NO.		LOCATION NO.
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI						
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

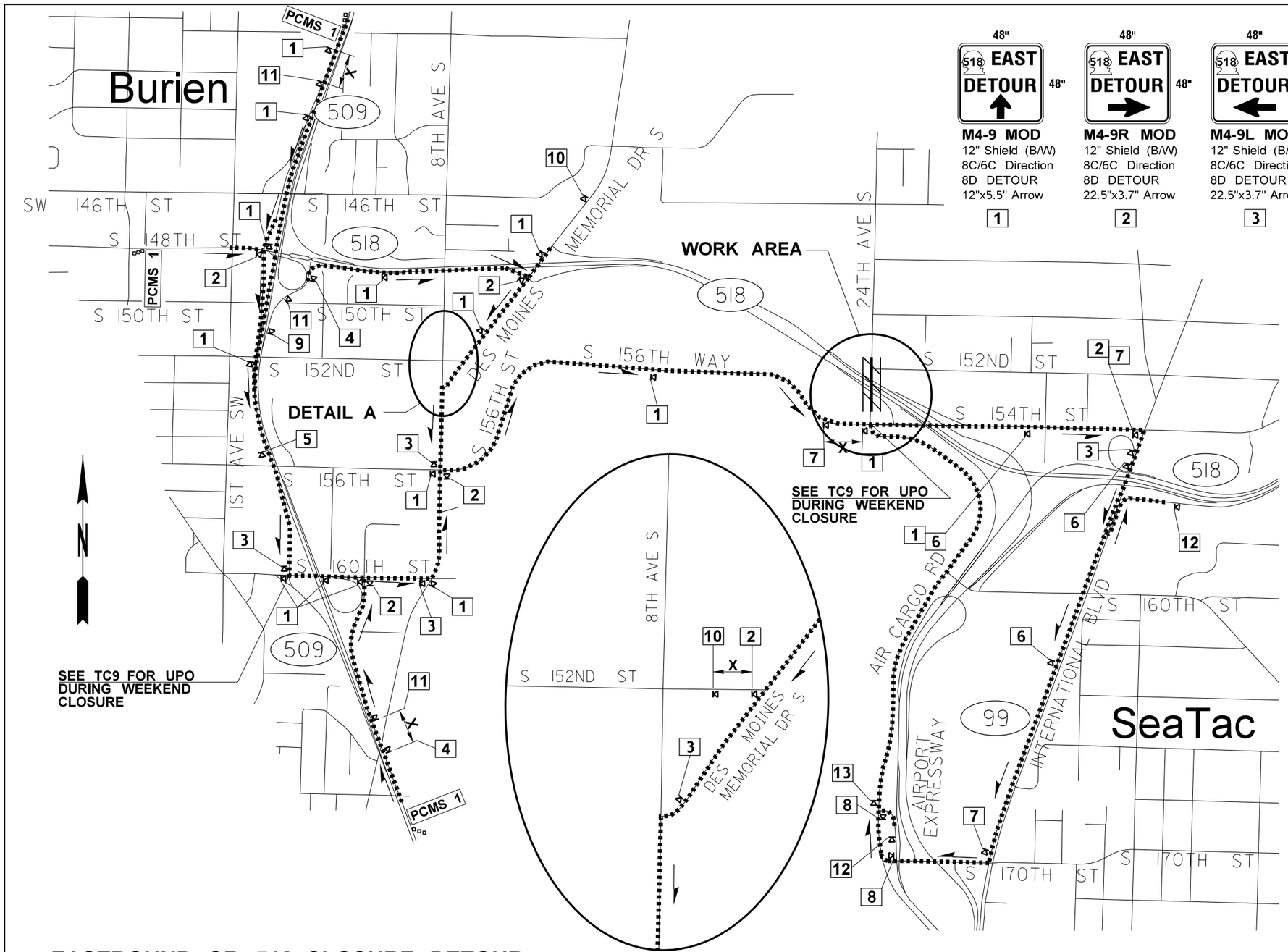
P.E. STAMP BOX — DATE

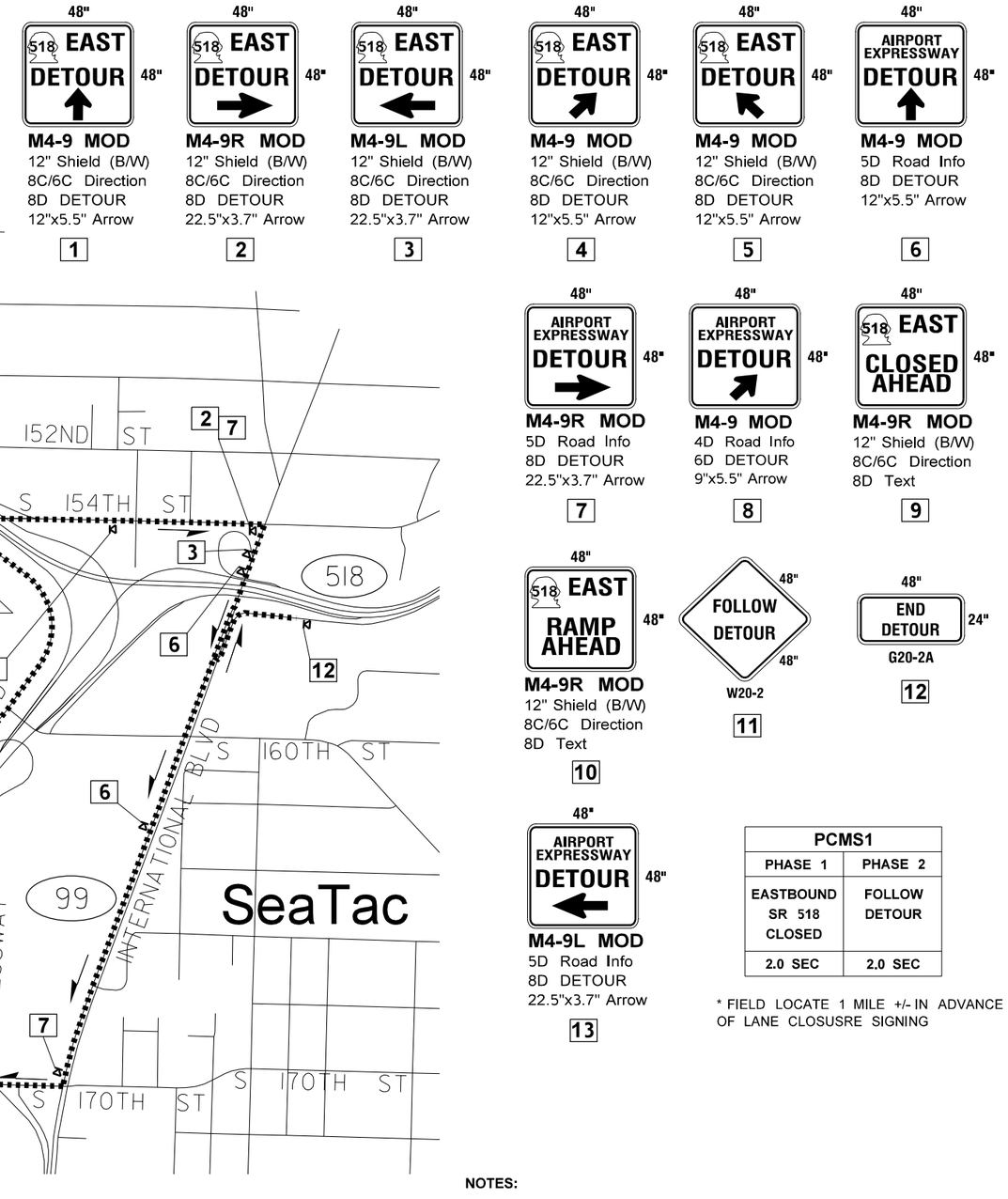
Washington State Department of Transportation

SR 518
24TH AVENUE S BRIDGE GIRDER REPLACEMENT

DETOUR PLAN

Plot 1
PLAN REF NO DU1
SHEET 42 OF 43 SHEETS





PCMS1	
PHASE 1	PHASE 2
EASTBOUND SR 518 CLOSED	FOLLOW DETOUR
2.0 SEC	2.0 SEC

* FIELD LOCATE 1 MILE +/- IN ADVANCE OF LANE CLOSUSRE SIGNING

EASTBOUND SR 518 CLOSURE DETOUR

NOT TO SCALE

DETAIL A

NOT TO SCALE

NOTES:

1. SEE SHEET TC1 FOR TAPER LENGTHS, SIGN SPACING, BUFFER DATA CHANNELIZATION DEVICE SPACING, LEGEND, AND GENERAL NOTES.

FILE NAME	T:\412350\XL6403 - SR518 24th Ave S. Girder Replacement\CAD Files\SR518 24thAve Overcrossing\PS&E\XL6403_PS_DU.dgn				REGION NO.	STATE	FED.AID PROJ.NO.
TIME	9:59:47 AM				10	WASH	
DATE	10/19/2022				JOB NUMBER		
PLOTTED BY	WilsonE				22A019		
DESIGNED BY	M.D. LONG/Y. DAMTE				CONTRACT NO.		LOCATION NO.
ENTERED BY	Y. DAMTE						
CHECKED BY	T. BERTOLINI						
PROJ. ENGR.	A. EMERSON						
REGIONAL ADM.	B. NIELSEN	REVISION	DATE	BY			

P.E. STAMP BOX — DATE

P.E. STAMP BOX — DATE

Washington State Department of Transportation

SR 518
24TH AVENUE S BRIDGE
GIRDER REPLACEMENT

DETOUR PLAN

Plot 7

PLAN REF NO **DU2**

SHEET **43** OF **43** SHEETS